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RAILWAY AGE

THE TRANSPORTATION WEEKLY

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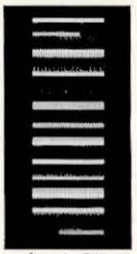

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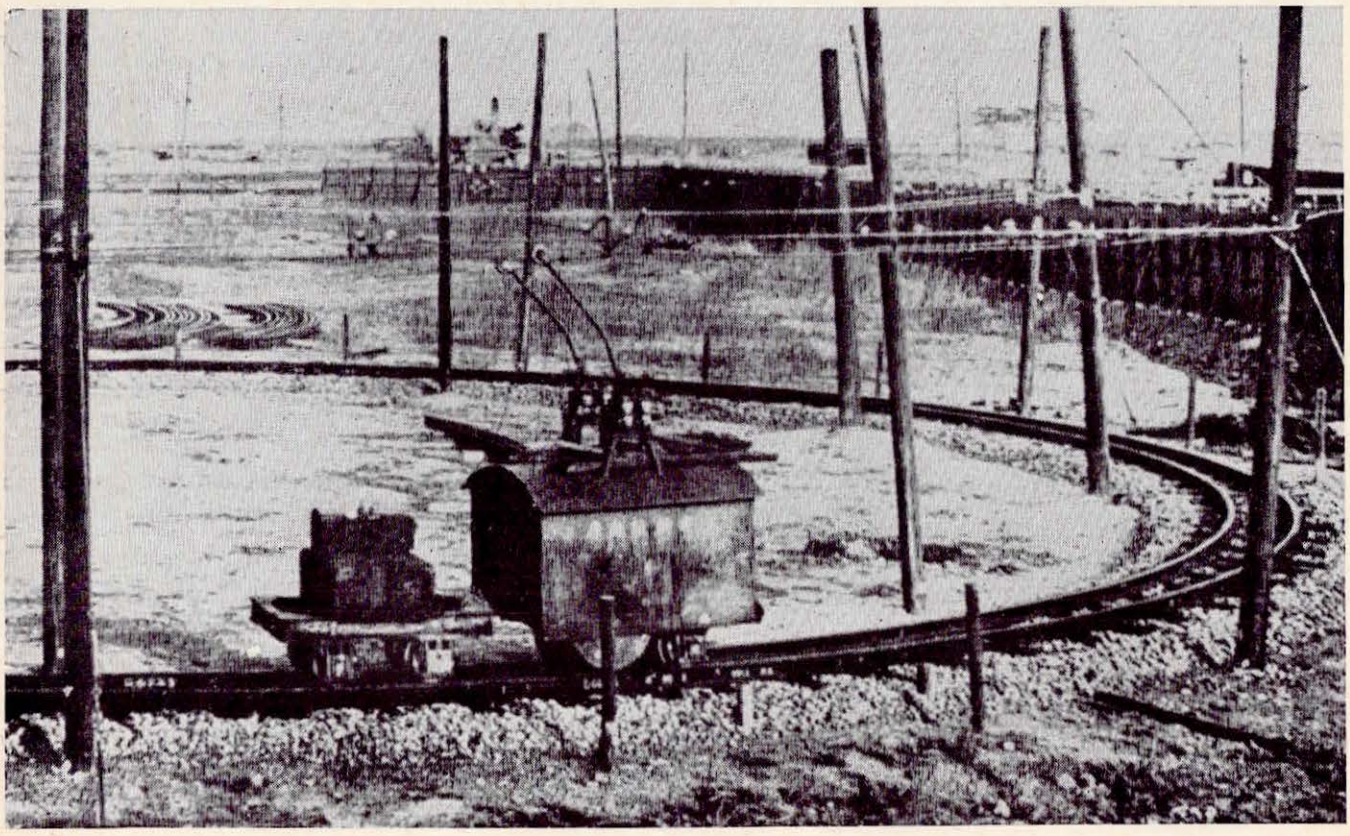

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RAILWAY AGE

Feb. 3, 1969 • Vol. 166, No. 4

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. . . AND COMING NEXT WEEK

"A. Scheffer Lang: A Critical Look Back, a Critical Look Ahead." In a taping session with the editors of Railway Age, the retiring Federal Railroad Administrator talked freely and bluntly about the industry's ills, and some possible cures. The interview will be published Feb. 10. Also in that issue: Reports by Railway Age's engineering editors on a new way to combat rail shelling . . . and on one railroad's fire-fighting formula.

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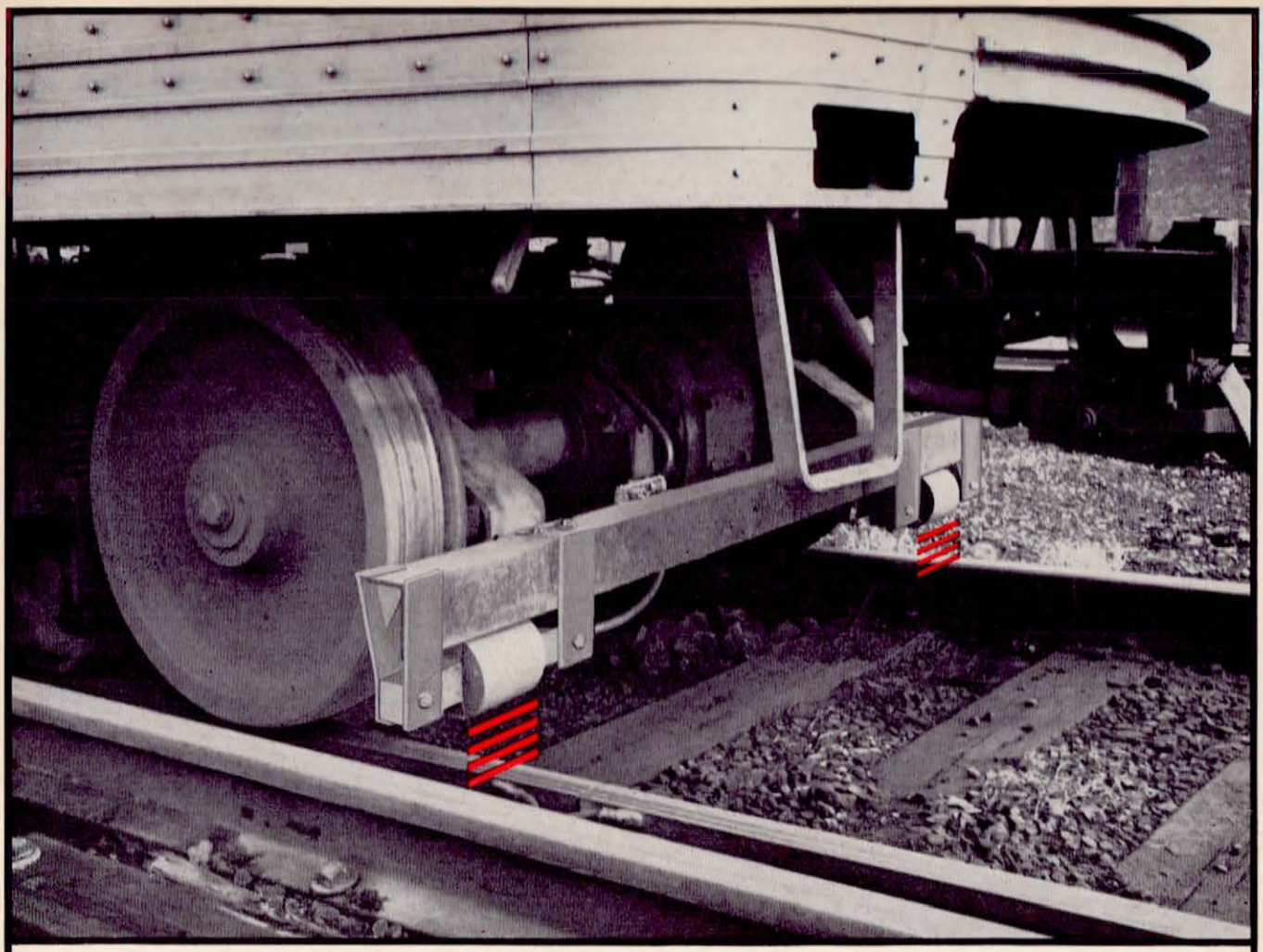

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SHORT AND SIGNIFICANT

Southern Pacific may increase capital spending

Southern Pacific, which spent $154 million on capital improvements in 1968, has already placed 1969 orders totaling $120 million—and SP President B. F. Biaggini foresees "a probable increase" for 1969 as a whole, compared with last year. Biaggini made this statement as he announced that SP moved an all-time record volume of freight in 1968 and increased earnings to a record $107.6 million. Equipment orders placed so far for this year, said Biaggini, include 3,109 freight cars costing about $60 million; 170 diesel locomotives costing $49 million; and 1,131 highway units costing $11 million. SP's 1968 acquisitions included 2,227 freight cars, 144 diesels, 15 commuter cars and 937 highway units.

N&W earnings up; merchandise freight helped

Norfolk & Western had consolidated earnings of $74.1 million in 1968, compared with $72.6 million in 1967. N&W President H. H. Pevler said a 13% increase in merchandise freight revenues helped account for the rise in net.

Extension of Chicago transit line proposed

Chicago Transit Authority's median-strip rapid transit line in the Dan Ryan expressway isn't yet open for traffic—but already, city planners are talking about extending the line south from its present terminal at 95th Street to 130th Street on the city's far south side (RA, Jan. 6/13, p. 17). The extension would provide service to the Calumet Harbor area, to a college and a junior college soon to be built, and to two Chicago Housing Authority projects whose residents now depend upon private bus service.

Fully automatic coupler will get first road test

Union Pacific will have the first ten carsets of National Castings' Compatimatic coupler applied to high-side gondolas now being built for a unit train by Thrall. Compatimatic, which is sensitive to the opposing knuckle so it is always ready for coupling without manual attention, is also being studied by a midwestern railroad for application to all cars in one of its unit trains. A National spokesman notes that the speed and safety of the arrangement has prompted the interest in its use on unit trains having cars which must be constantly uncoupled and coupled. In addition to its railroad applications, National has 60 carsets of Compatimatic going on captive cars at four different steel mills.

Container unit trains under study

Can an inland city such as St. Louis become an international port? It can, if people like Downing B. Jenks are reading the signals correctly. Missouri Pacific's president thinks it's probable that further development of international container traffic will give St. Louis just such a role—with high-speed container unit trains shuttling between coastal cities and inland distribution centers. MoPac, he says, "has this unit container train concept under active study. We see in it the possibility for development that will contribute both to the coastal ports and to the inland cities we serve."

Itinerary completed for Rail-Transit Tour of Europe

A detailed itinerary for the 1969 Rail-Transit Seminar Tour of Europe, sponsored by Railway Age, has now been completed. The group will leave New York April 29 and will visit Budapest, Berlin, Frankfurt, Paris, Brussels, Rotterdam and London. In London, members of the Railway Age tour will attend sessions of the biennial congress of the Union Internationale des Transport Publics, the worldwide transit organization. Railway Age Editor Luther S. Miller and Transit Editor Joe Asher will accompany the group. Details are available from the Editor of Railway Age, 30 Church St., New York, N.Y. 10007.

MONDAY MORNING REPORT

RAIL LABOR AND ITS "PRAGMATISTS"

Union leaders—policy makers, negotiators and so forth—are generally regarded as a pretty pragmatic bunch. But their reputation for practicality may start to suffer, so far as the railroad industry is concerned. Reason: They still show a desire to cling to theories and practices which, probably, have not worked.

QUESTIONS SHOULD BE ASKED

The story is as well known to union people as it is to management. Over 10, 20, 30 years, the railroad industry's share of the transportation market has dropped. Its share of the dollars spent for transportation has dropped even more sharply. Over 10, 20, 30 years, railroad employment has dropped steadily, with the exception of the war years. Employment averaged about 590,000 last year, hitting a 20th century low. On management's side, there is an increasing amount of introspection. The question is being asked: "What are we doing wrong?" Answers are coming. But on labor's side? There's less evidence to indicate that labor is doing its homework, or giving much thought to that same question: "What are we doing wrong?"

CHANGE COMES SLOWLY, BUT IT'S COMING

Nobody blames the brotherhoods for all the industry's ills. Management itself accepts a responsibility, acknowledging that the old business of railroading has lent itself more to evolutionary than to revolutionary change—and that change has come along too slowly. But the pace of change is quickening, in those areas where today's managers have running room. Unfortunately, there is little room for maneuvering in the areas which involve labor—and labor costs last year, including wages and supplements, ate up almost 54% of total rail operating revenues.

MANAGEMENT CHALLENGES SOME "OLD ANSWERS"

Historically, the industry's answer to its high labor cost problem has been to replace men with machines, insofar as possible. Labor's reaction has been to dig in and fight. Now, however, at least a few people in management are questioning their own old answers. They're looking at a kind of railroading which, to a degree, could be more, not less, labor-intensive. The competitive aspects of their studies are fascinating—and promising. What's labor's reaction to this kind of thinking? There has been no overt move on labor's part. The old fights still go on. But there's a hope that some interest has been sparked. There's a hope that the key question will be asked: "What are we doing wrong?"

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WEEK AT A GLANCE

UP-RI merger gets Justice's approval —with conditions

The Justice Department, often cast in the role of railroad-merger opponent, has found a merger it could favor—Union Pacific-Rock Island, provided certain conditions are met which would split present RI properties among four western roads. Under the Department's plan, merger with UP should be conditioned on (a) providing direct lines to the Missouri River gateways for Rio Grande, (b) transferring RI's Amarillo-Memphis line to Santa Fe and providing Santa Fe with entry into St. Louis, and (c) transferring RI's other southern properties to Southern Pacific and providing SP with entry into Kansas City. According to a Justice Department brief filed with the ICC, this plan would "minimize harm to rail competition resultant from acquisitions and division of Rock Island and would in some respects improve the terms of railroad rivalry." Conversely, in the Department's opinion, Chicago & North Western-Milwaukee Road merger coupled with C&NW's proposed acquisition of RI would reduce midwestern rail competition to levels regarded as unacceptable. In studying the competing bids, Justice contended that cost savings and service improvements projected in the various RI proposals do not differ significantly—and that "competitive considerations are left as the principal factors to be weighed in passing upon the applications." Two ICC examiners now have the RI case under advisement after more than two years of hearings. No report is expected until late this year, at the earliest.

New diversifying moves planned by Penn Central

The Penn Central plans further diversification into "a wide range of growth enterprises"—and to ease the way, PC will establish a parent holding company. A detailed plan is now being prepared and is expected to be ready for a stockholder vote at the company's annual meeting May 13. PC Chairman Stuart T. Saunders said the new parent company would own all the outstanding stock of present Penn Central as a result of an exchange with individual stockholders on a share-for-share basis of shares in the new parent organization. No tender offer is involved, but proxies asking approval of the plan will be solicited prior to the annual meeting. The proposal calls for the organization of two corporations—one to become the parent holding company, the other a new corporation wholly owned by the parent, which would be merged into the present railroad. As a result, the railroad would become a wholly-owned subsidiary of the parent company.

L&N starting up a new venture: Cybernetics, systems

Louisville & Nashville is making its first move into non-transportation enterprises—with a new subsidiary in the growing field of computer counseling, programming and comprehensive management information systems development. W. H. Kendall, L&N president, will be chairman of the new company, Cybernetics & Systems, Inc. Samuel A. Alward, now director of management information services for L&N, will be president and chief executive officer. C&S offices are being set up initially in Louisville and Chicago; other cities will be added to the operation as demand dictates. C&S services, Alward says, will include "design of complete management information systems, data-processing programming services, proprietary software packages, establishment of criteria and design for new data-processing equipment, installation and operation of data-processing facilities for a client and training of data-processing and management personnel." There's no present plan to get into the design and building of hardware. But, Alward adds, "neither do we have any intention of overlooking opportunities for the logical expansion of the enterprise." C&S will be starting out with at least one prime client: L&N itself. In photo: Kendall (seated) and Alward check proposed emblem.

GUS WELTY

LINES ON LABOR

COMPULSORY ARBITRATION has been a hot topic for debate ever since organized labor first put the bite on organized management. With rare exceptions, however—and the ones that come immediately to mind have involved the railroad industry—compulsory arbitration hasn't had the enthusiastic embrace of more than a handful of people. Still, the debate continues—with the Wall Street Journal and National Railway Labor Conference Chairman J. P. Hiltz, Jr., engaging in the most recent verbal skirmish.

TO SUM UP THE ARGUMENTS, the WSJ contended that compulsory arbitration doesn't really work, and that government's main role should be to "strive to restore some semblance of balance between labor and management." Active intervention, the Journal said, should come only in last-resort fashion, when a strike "genuinely threatens a national emergency." Hiltz, replying at length, stressed the power which rail labor holds and argued that a balance of power "can only be restored through new legislation of the type that would provide for some finality. . . ."

COMPULSION, it's often said, is alien to the so-called American way of life. In the area of labor-management relations, compulsion is abhorred by labor and opposed, so it's been said, by management in many or most industries. Even in the vital transportation sector, it is railroad spokesmen—not those for motor carriers or airlines—who most often raise the call for forced arbitration.

COMPULSION, however, is not all that uncommon. The cop on the corner represents compulsion. So do the labor laws which require management to bargain with the employee's chosen representatives. Laws forbidding strikes by public employees are a form of compulsion.

RAILROAD MANAGEMENT today is in an unenviable position, in its dealings with railroad labor. Recent history indicates that labor is getting smart—striking selectively and winning, rather than striking nationally and forcing government to intervene. Recent history also indicates that few roads will long hold out against a strike—not every road is, or could be, a Florida East Coast or a Belt Railway of Chicago. So, the power does indeed rest with labor, and in view of this, compulsory arbitration may be the only way of evening things up. But if that's the best this industry and its employees can do, then things are really bad.

Crew-consist fight still in court

Briefs are due Feb. 4 in U.S. District Court in Nashville in the judicial phase of the crew-consist dispute between Louisville & Nashville and the United Transportation Union (Brotherhood of Railroad Trainmen). L&N had made a new proposal to the UTU in open court during four days of hearings and it's understood that further talks have been held since the close of hearings Jan. 24. In the meantime, U.S. District Judge W. E. Miller has indicated that a temporary restraining order barring a strike by UTU will be kept in force until the case is decided.

Perlman plugs common ownership

Alfred E. Perlman, Penn Central president, took the case for common ownership to Washington last week. The national transportation policy is misinterpreted to prohibit rail diversification into other modes of transport, Perlman told the Federal Bar Association. He also charged that regulatory policy is misguided to preserve competitors but kill competition.

"I cannot believe that the framers of that policy would have deliberately devised a system which could so completely preclude the efficient exploitation of the tools of transportation; which would insure the most wasteful system of transportation; which would exact the highest possible transportation price from the general public; and which would forever deny the general public the quality of service to which it is entitled," Perlman said.

With the exception of the Panama Canal Act, there's no prohibition against common ownership of rail, motor, air and water carriers, Perlman said. However, statutes have been interpreted by regulatory agencies to require railroads to show special circumstances before they can acquire other carriers, although the reverse is not true, he said.

"The regulatory agencies have further refined the showing of special circumstances to the point that it is virtually impossible for a railroad to use effectively another mode of transportation in its operations," Perlman said.

Perlman said the benefits of common ownership to the public include: tailoring of rates and service to meet particular needs of customers; provision of appropriate mode of service or combination of modes that shippers need.

Place an egg across the palm of one hand, curl your fingers around it and squeeze. Go ahead, you can't break it. Try again. The harder you push with your palm, the harder you pull with your fingers, supporting the fragile shell on all sides.

Now let's compare the eggshell to the bowl of a centerplate and your palm to a 100 ton swaying, rocking railroad car. Put the egg on a table and press down. The egg is instantly crushed because it isn't supported, just as an ordinary centerplate bowl is eventually cracked by the immense weight pushing on the relatively small, unsupported shoulder area. But hold the bowl sides together with lateral ribs as you held the egg together with your fingers, and the centerplate bowl is much stronger. The ribs counter lateral stresses placed on the bowl shoulder by the rocking load. BFF makes a one-piece ribbed centerplate. And even better, one with a solid bowl. Winged or standard, drilled to your specs. Ask about our 70-ton-plus centerplates.

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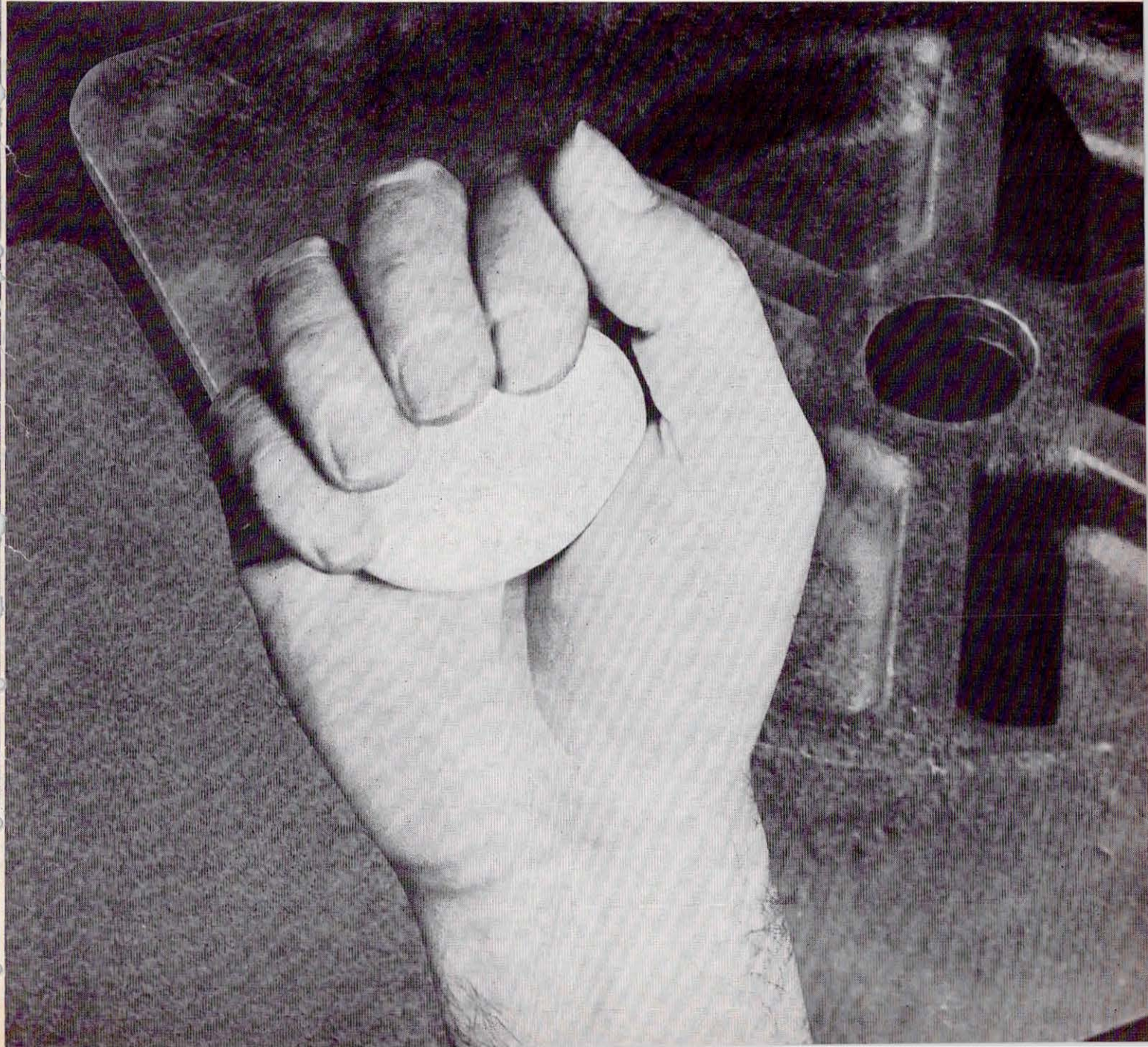

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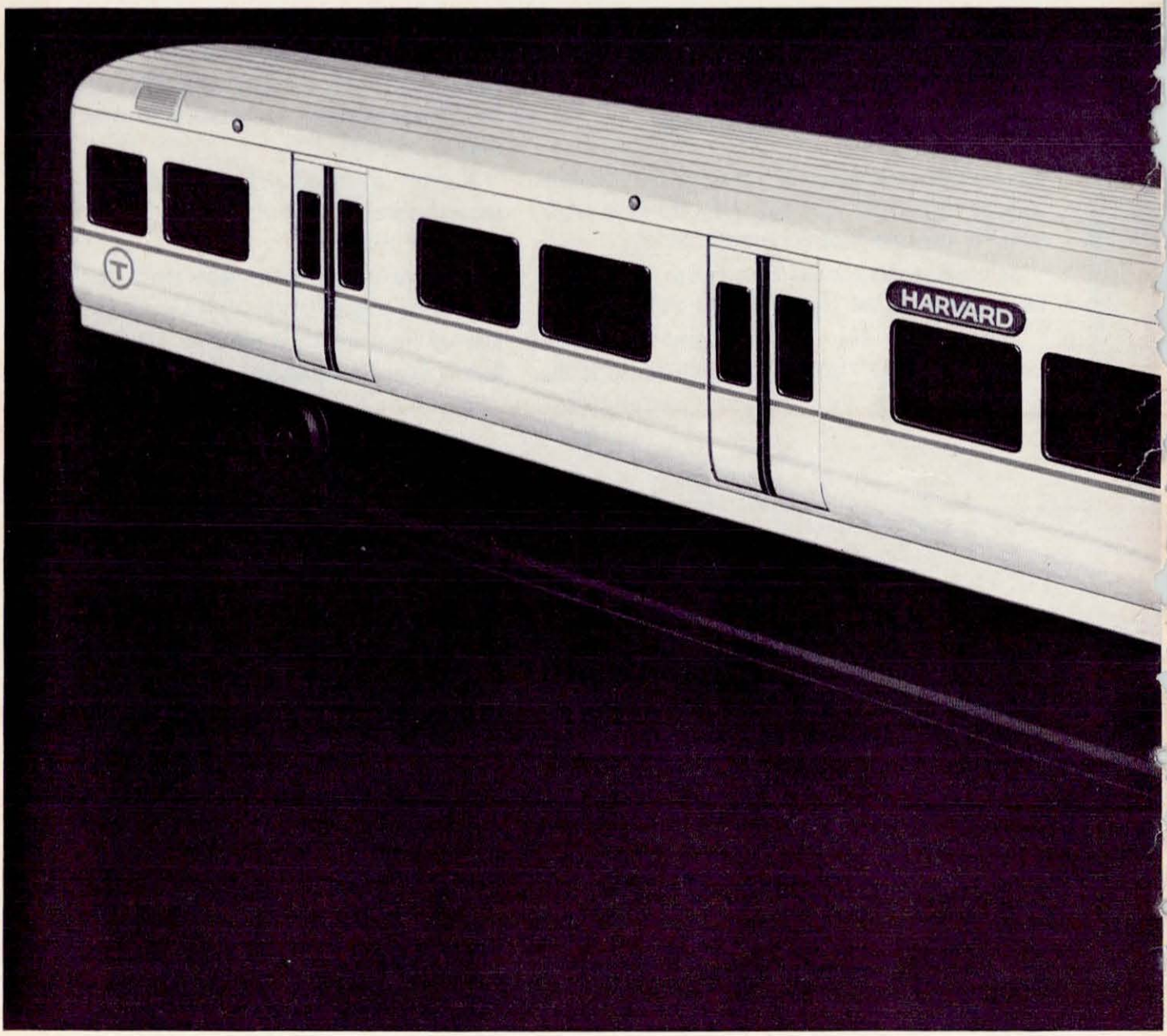

The Massachusetts Bay Transit Authority car, shown below, is one of 76 ordered for the greater Boston area. This car, the first of its kind in the U.S., will feature a gleaming, satin-smooth, brushed aluminum exterior developed jointly by Alcoa and Pullman-Standard specifically for the transit industry.

The warm natural tones of aluminum will offer an added measure of commuter-pleasing beauty to these cars.

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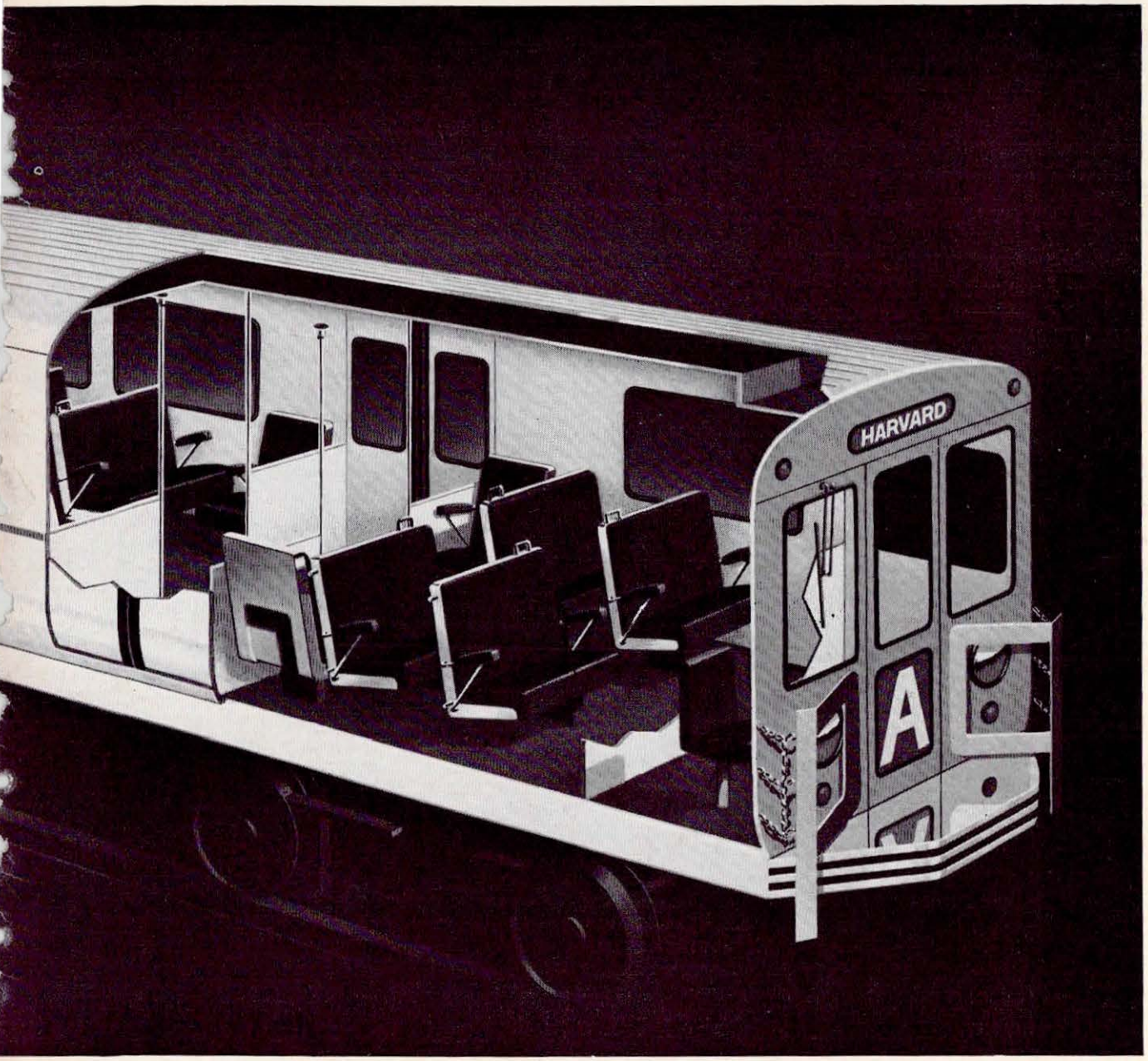

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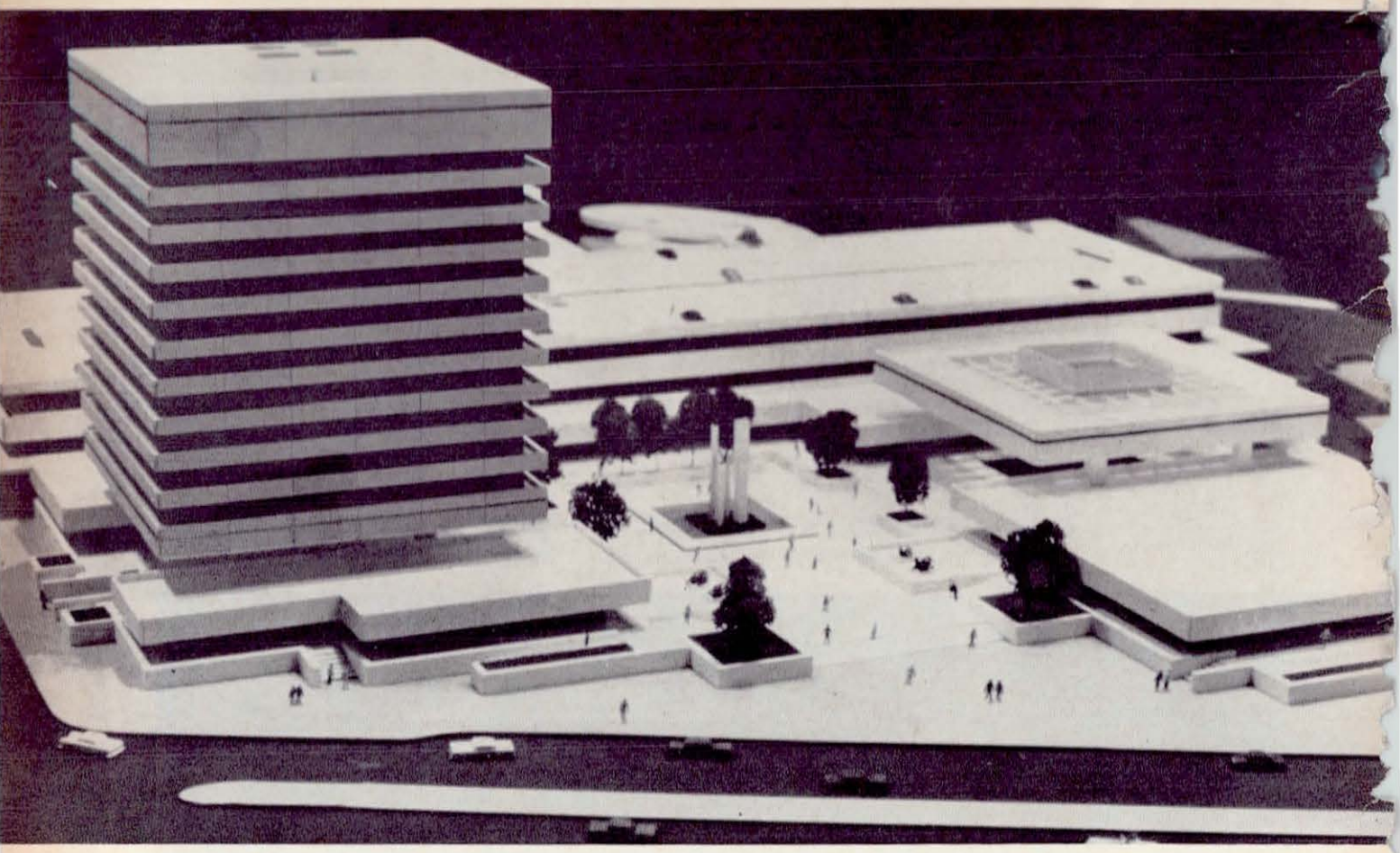

NEW JERSEY: By designing this multi-modal terminal at Journal Square, PATH started an urban-renewal chain reaction.

PATH lifts its face—and the

Smart terminal planners keep a sharp eye on total environment—and total transport. That's the path PATH took.

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• **Strong medicine.** The $45-million Transportation Center at Journal Square is a four-way cold tablet for Jersey City's urban headaches: It will ease traffic congestion, speed transfers from one mode to another, put a spark plug in urban renewal plans, and is sure to trigger a rise in land values.

The Journal Square project was announced by PATH officials at a conference attended by city, state and federal officials, all of whom had contributed in one way or another to the decision to go ahead with the plan (DOT, importantly, granted $17 million toward the cost).

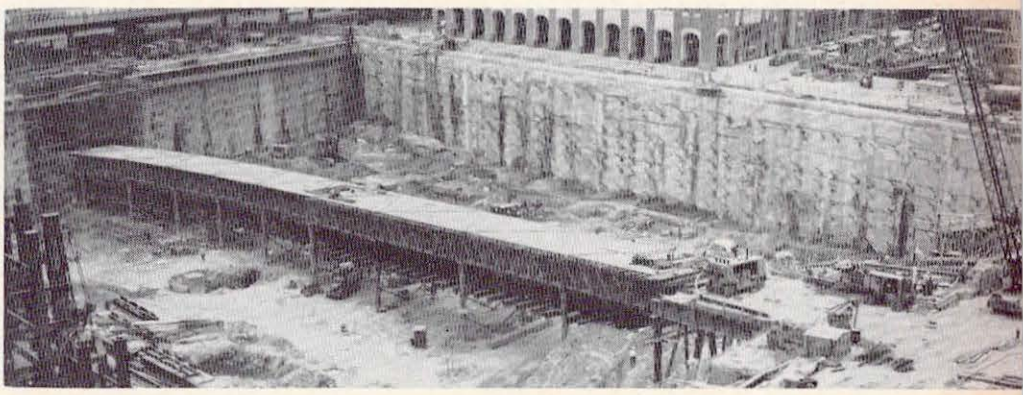
Since then, construction contracts have been granted for earth-moving and track-shifting in preliminary phases, prior to the actual construction job on the terminal, which is to be completed by 1971.

On the site of the present not-so-sparkling station will rise a tri-level terminal to accommodate buses and automobiles as well as rapid transit. A tree-lined plaza, spacious concourses and escalators will provide easy approaches and transfers from one mode to another. A 10-story office building facing the plaza will become PATH's new headquarters.

• **The options.** Site planning played as big a part in the design as did track layouts. PATH and its parent agency, the Port of New York Authority, had a team of over 70 engineers, architects, real estate and legal specialists and economists collaborating on the details. Before arriving at the final concept they studied 23 different track layouts and

NEW YORK: Twin 110-story skyscrapers will rise on this site in lower Manhattan—with a new PATH terminal below.

skyline



WORLD TRADE CENTER SITE is cleared without interrupting PATH service to existing terminal. Tunnel section shown is in use while work goes on.

eight terminal designs.

In the final plan, the Center shows a concern for space, light and the clean lines of modern architecture. It also shows that different modes of transport function best when they don't work at cross-purposes: Buses that now discharge passengers on side streets will bring them directly into the terminal, where riders transfer to PATH trains.

But the Journal Square face-lift doesn't stop with the Center: Instead it started the ball rolling on other renewal projects in the vicinity.

• **Spurring urban renewal.** City officials announced plans to construct a five-building civic center on an adjacent site. Land was already acquired for part of this and two municipal buildings are scheduled to go up in the first phase; another three buildings in a succeeding phase.

This, in turn, sped action on still other renewal projects in the vicinity: A department store and a 1,000-car municipal garage are planned, and an office-building residential complex has been discussed with private developers. The final value of construction projects around Journal Square will run into hundreds of millions of dollars.

The upshot is a new skyline for Jersey City, and almost certainly, a new lease of life for commerce and industry there.

Lower Manhattan is also due for a big change in its skyline, as the World Trade Center—twin 110-story skyscrapers—in a plaza fronting on the river slowly takes shape.

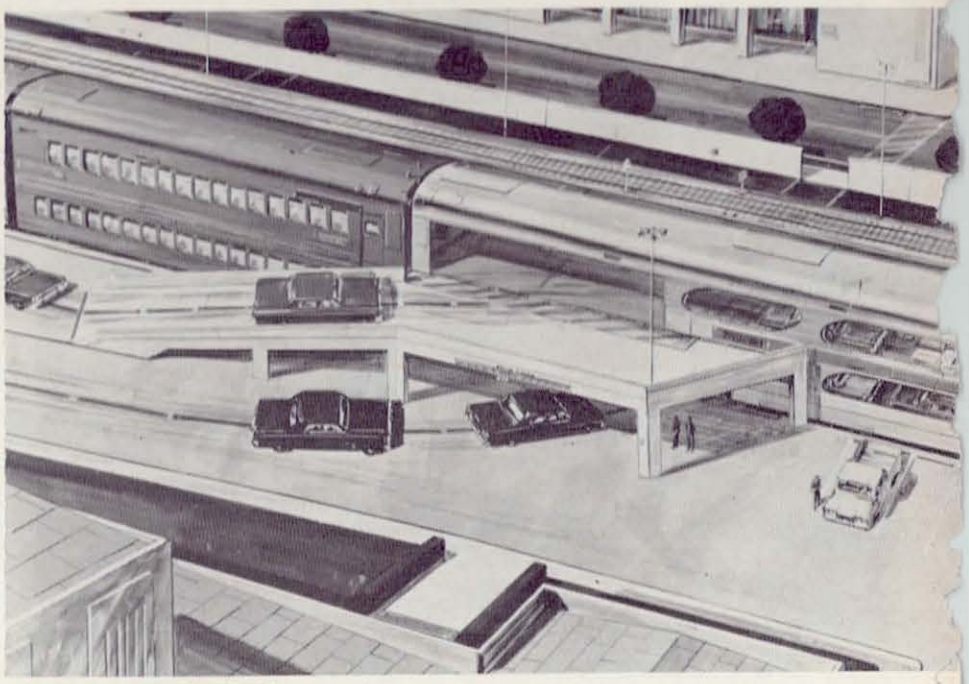
On a site partly taken over from aged, now mostly demolished buildings astride PATH's Hudson Terminal, the twin office buildings and plaza will provide needed space for commercial, shipping and insurance firms in the crowded area.

Below the Center, the present terminal will be replaced by a new one with a completely different track layout. Contracts have so far been let for platform-lengthening—to take eight-car trains and to install automatic signal interlocking (by WABCO).

The skyscrapers and their transit underpinnings should be part of the New York scene by 1972. ■

What lies ahead for fast

Here's a report on some of the far-out research that should have a significant bearing on the future of ground transport systems. The basic ideas range from the conventional to the exotic.



AUTO-TRAIN SYSTEM

This is a concept for intercity ferrying of autos and passengers at high speeds. The autos would be located lengthwise to the carrier on standard-gauge trains.

"We Shall Overcome" wouldn't be a bad theme song these days for anyone who has to do much traveling, almost anywhere in the country and via any mode of public transportation.

But researchers are making an impressive beginning, at least, toward reestablishing one neglected form of transportation—surface transportation—as a quick, efficient, reliable, comfortable way of getting from one place to another.

The visible part of this could be summed up in the Metroliners and TurboTrain. The less-known but no less important part lies in the far-out noodling and doodling being done by such people as the TRW Systems Group in connection with DOT's High Speed Ground Transportation Program.

● **The search goes on.** Included in the search for improved transport capability have been a comprehensive survey of applicable surface-transport technology, a series of coordinated research projects involving about 40 contractors, and a three-part study by TRW Systems Group which boiled down to systems engineering, analysis and development of research requirements for seven basic classes of transport system.

The report that eventually went to DOT offered data on three station-to-station systems, three door-to-door systems and a continuous-capacity system. In each case, TRW outlined guideway, suspension and propulsion possibilities; balanced potential advantages against potential disadvantages; and summed up the R&D work required as a next step in moving ahead with any of the systems.

● **Performance appraised.** As TRW sees it, the study did four things:

—It reduced and refined "a multiplicity of diverse and competing HSGT concepts and configurations to a meaningful and manageable small number of alternatives."

—It produced a data bank of performance and life-cycle cost elements for the most promising HSGT possibilities, over a range of requirements.

—It advanced HSGT technology "in key disciplines upon which further progress depends."

—It established a "system conceptual framework for effectively utilizing current and applicable R&D results fed into the systems study by DOT's national team of research contractors. It also highlighted important R&D which must be started to establish the feasibility of the HSGT candidate-systems."

For station-to-station operation, TRW reported on tracked air-cushion systems, rolling support systems and three types of tube vehicle systems. For door-to-door transportation, the study covered multi-modal systems, auto-train and automated highway systems. The continuous-capacity system, employing a variation of the endless belt principle, was the only one of the seven systems in the study to offer continuous rather than sequential service between origin and destination points.

● **Cushioned on air.** Tracked air-cushion systems, TRW says, are "a prime candidate for early operation. Full-scale government-sponsored development of this concept is being pressed by the French and British. An American equivalent full-scale vehicle experimental program is needed."

In operation, such a vehicle, moving in the 150-300-mph speed range, would get support/guidance from a concrete structure in the shape of a **U**, an inverted **T** or a box. Propulsion could be by linear electric motor or by a variety of turbine applications.

Studies to date indicate that the guideway may offer cost advantages in construction and maintenance, and that such systems would provide a smoother ride than rail systems, with no wheel hop or traction limitations. At the same time, TRW points out, a high level of power would be required to support the vehicle. Moreover, there could be noise problems created by the air-cushion equipment. And, as with most guideway systems, switching is difficult.

Next R&D step, it is indicated, could be a vehicle test program "to establish technical parameters and to define performance capabilities for operational systems." Full-scale tests should also be started "to investigate interaction between a linear electric motor and air cushions."

● **More conventional . . .** Rolling support systems offer something more

surface transportation?

like the familiar. Support and guidance would be provided either by conventional surface rails or by monorail. Speeds would range up to 300 mph, with propulsion supplied by a rotary electric motor or gas turbine driving through the wheels or by linear electric motor.

As TRW points out, in such a system no energy is required for support and power is applied only to propulsion. In effect, conventional technology is being extended to a higher speed range. On the minus side, however, the study calls attention to high-speed wheel-slip problems, possible high maintenance costs for the guideway structure, and the switching difficulties posed by monorail systems.

R&D needs in this area, TRW says, would cover "traction, power-pickup and long-term roadbed-settling, all of which limit performance."

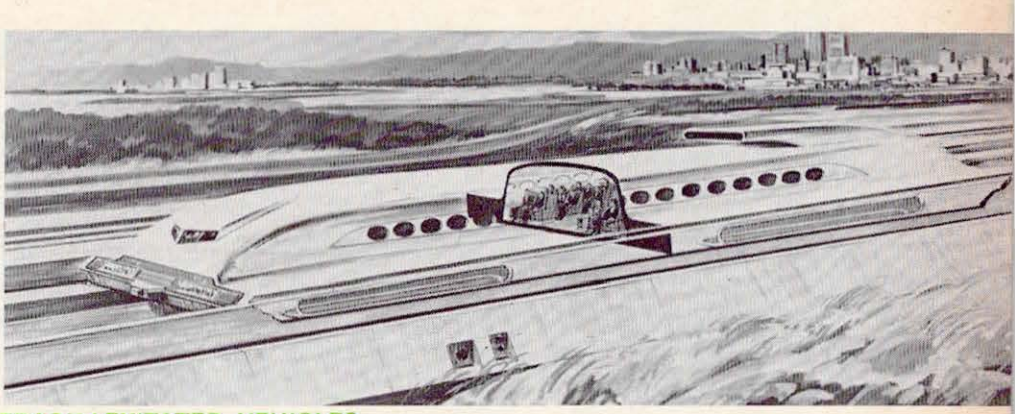
● **Tubes, pro and con.** Tube vehicle systems represent perhaps the most far-out part of the study. TRW investigated three sub-classes of tube system, including one providing speeds of up to 500 mph in which the vehicle would be guided and supported electromagnetically in the tube.

On the advantage side, tube systems would provide all-weather operation, with minimum disturbance to the area through which they run. Speeds can be high because of reduced aero drag. Electromagnetic suspension, TRW notes, is "presently the only suspension candidate for systems running in evacuated tubes at speeds unsafe for metallic wheels." On the disadvantage side, tunneling costs are high, existing power-pickup devices are not suitable at the speeds contemplated. In addition, "evacuated systems pose special safety and maintenance problems." And in the case of the electromagnetic suspension system, "intense magnetic fields may affect passengers and sub-systems. Vehicles may require heavy shielding."

R&D requirements here cover a broad range, from improved tunneling techniques to lab tests which would establish the feasibility of electromagnetic suspension.

Somewhat less exotic are the three door-to-door systems included in the study report.

● **Individual vehicles.** Multi-modal analysis came up with a system of "small, individually-operated vehicles with multiple modes of control and mobility. These vehicles run on conventional streets and highways but, unlike conventional autos, they can also enter limited-access, fully-automated guideways which control the vehicle and guide it safely to destination." This type of system, TRW observes, "is particularly applicable to the urban environment and appeals to users because it combines most of the advantage of the private automobile and high-speed mass transit."



TRACK-LEVITATED VEHICLES

Tracked air-cushion vehicles, guided along a track and supported over it by various methods, are said to be prime candidates for early operation.

Speed range for such a system would be 80-150-mph. Propulsion could be by the more-or-less standard internal-combustion engine, or it could be by linear or rotary electric motor.

Key advantages of multi-modal systems lie in their shortening of door-to-door travel time and in their relative compatibility with urban systems. But vehicle unit costs per passenger would run higher than for either conventional auto or mass-transit systems. And, TRW notes, some verification of vehicle maintenance may be required before they could be used on public guideways.

What is now needed if a multi-modal aproach is to be taken, TRW says, is additional R&D work on suspension and switch design and on automatic, fail-safe control systems. Basically, however, "a multi-modal system can be designed from current technologies for use in cities."

● **Two auto-trains studied.** Auto-train systems could provide another option requiring only moderate R&D work. TRW analyzed two basic loading schemes, one for lengthwise auto loading on rail cars operating on standard-gauge track and the second for crosswise loading on cars which would require a 17-foot track gauge.

Speeds would be in the 100-150-mph range, with diesel-electric or gas turbine or rotary electric motor propulsion. TRW found that crosswise-loaded autocarriers would require less propulsion energy per car loaded. But there would be the offset expense of providing the wider guideway.

On the plus side, the auto-train concept would offer transport flexibility to the motorist, with high-speed door-to-door service. With lengthwise loading, however, there would be problems in loading for different destinations. Next step in developing the concept, TRW believes, should be determination of public acceptance and economic feasibility.

Automated highway systems would make use of vehicles not too much different from the conventional automobile—modified, however, to convert drivers into passengers "by transferring guidance and speed control to an automated electronic command - control system which regulates speed and spacing acording to programmed operating policies."

Use of this kind of system, TRW says, "would permit faster, safer and denser traffic per lane of road than is possible today with human driver control and standard enforcement of traffic regulations."

Speeds would be somewhat higher than those possible with driver-control of vehicles. But the automated highway system, like the multi-modal system, would pose problems of control of individual-vehicle maintenance. Complex central control systems would also be required for entry/exit merging and lane changing.

R&D efforts, TRW says, might be aimed at determining economic feasi-

Frank Malone

WATCHING WASHINGTON

LANG LEAVES—Transportation Secretary John A. Volpe makes a clean sweep of his department's appointive posts. Shef Lang, Federal Railroad Administrator, prepares to depart Feb. 10. Some key railroaders urge Lang's retention —but there are exceptions. And the exceptions apparently block endorsement of Lang. His name doesn't appear on the OK list. How much weight this carries with the new Secretary is hard to say. Volpe wants men of his own political and philosophical mind. There are debts to pay, too. Lang is not alone. Paul Sitton the Urban Mass Transport Administrator, is also saying his goodbyes.

CRITIC AND FRIEND—Though Lang criticizes rails at times, he does so (his supporters insist) from understanding. This leads him to take the rail side in things like the passenger issue ripening on his desk. He says someone has to find out what type of intercity service is needed (through a two-year probe, perhaps). But he feels much of the service now operated should be dropped. This brings frowns to brotherhoods and Congressmen—a combination to influence office-filling.

BLUNT WITNESS—Congressmen on the House Interstate and Foreign Commerce Committee know Lang from statements like this: "I can only advise the Committee that if we want our railroads to continue doing their job for the public, then we have to start taking their circumstances and their problems seriously." In judging proposed changes in the Interstate Commerce Act for a one-year moratorium on discontinuances, especially for last trains between two points, Lang testifies: "The Committee must be aware that the financial condition of our privately-owned railroads is a cause for increasing public alarm."

PROBLEM STAYS—Already in the 91st Congress, three bills are introduced concerning people-trains. In addition, Congress awaits the findings of an ICC study of real passenger-service costs. The problem that boils the hottest water for Lang remains for his successor. As drawn by Lang, the FRA position is clear. The new man can't ignore it. Whether he'll take the same bold stand depends on who is responsible for getting him into office.

HE'LL BE MISSED—Many observers feel that the passenger issue may be the most important facing the industry today—and on this issue, the railroads have had a bold and knowledgeable friend in Shef Lang. His critics may miss him—more than they know.

bility and the compatibility of control system with existing facilities.

● **Uninterrupted service.** Continuous-capacity systems, by comparison with the station-to-station and door-to-door systems, would be slow and limited in application. Operating at 15-25 mph, they would offer uninterrupted, continuously-available service to large numbers of passengers. But there would be safety problems in loading/unloading, and passenger acceptance might be limited. The R&D recommendation: Improve loading and unloading techniques.

In the supporting analytical studies, the TRW Systems Group explored a broad range of problems, from system design for passenger comfort to development of detection systems. The studies, TRW says:

—Constructed consistent sets of requirements to ensure passenger comfort in the context of acceleration, vibration, noise, optical effects and atmosphere control.

—Developed a model for predicting community acceptance of HSGT noise sources.

—Identified the areas of greatest sensitivity for limiting rail roadbed damage during use, and developed methods for evaluating the need for and the effect of advanced roadbed structures with respect both to passenger comfort and maintenance requirements.

—Established simple calculation procedures for estimating earth-moving requirements in right-of-way construction.

—Examined cost components and ride comfort for various types of elevated structures, and developed data necessary in guideway cost tradeoffs with various vehicle-design alternatives.

—Developed "a comprehensive data bank for deep-tunneling concepts, elements and costs while providing a technology base for evaluating R&D in advanced fluidic, jet flame, chemical and laser tunneling methods."

—Developed parameters of physical and performance data for electric, chemical and hydraulic propulsion units, then identified critical development areas in the theoretical analysis of linear electric motors, hydraulic motors, power pickup and onboard power control/conditioning equipment.

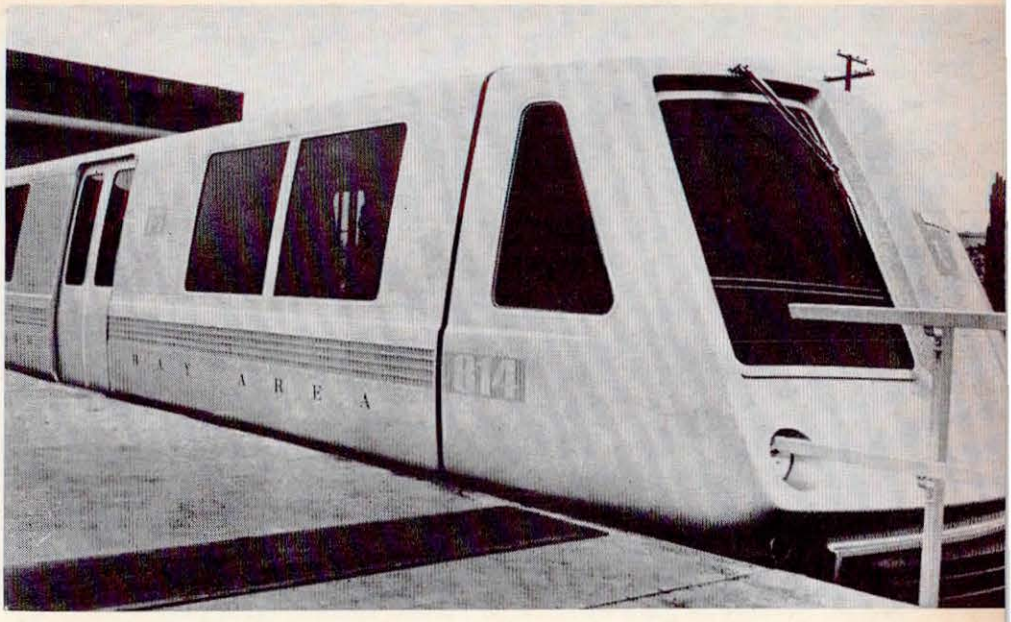
—Selected representative techniques regarding major control functions and developed methods for continuous monitoring of an entire system.

—Developed system requirements for fleet and vehicle communications, vehicle and foreign object detection.

The specific objective of the HSGT studies has been aimed toward the Northeast Corridor. But the principles could be applied to any of the traffic corridors which urbanization is producing. ■

TRANSIT ROUNDUP

Bidding starts on BART cars



Bay Area Rapid Transit officials announced that as of Feb. 3, they would advertise for bids on 250 transit vehicles. Along with the tender is a provision for 10 prototype cars before the production run.

The cost of the 250 cars is put in the $50-$70 million range, and a DOT capital grant of $28 million will be applied toward that cost. Bids will be opened June 3, and a lead time of 30 to 36 months until start of delivery is anticipated.

Considered fairly certain for approval is a $5 million demonstration grant from DOT for intensive testing of the first 10 of the 250 cars. The idea, arrived at after observing the Metroliner experience in the East, is that road tests and other trials will reveal the need for any engineering adjustment, if necessary, before the bulk order comes.

Meanwhile, BART officials are keeping a close eye on Sacramento, where the legislature is to consider a sales tax that would raise $145 million to complete BART construction. Earlier tries for state aid came to grief, at least partly because the BART supporters couldn't agree on tactics.

DOT faces change: John Volpe, the new Secretary of Transportation, let it be understood that senior DOT administrators in the Johnson Administration would be held over until Feb. 10—at which time he would announce his new appointments.

Some people known to have been looked over for the UMTA Administrator's job are a big city mayor from the Pacific Northwest; an urban renewal man in New England; and two top public relations men for transit suppliers in the mid-West.

Philadelphia set to go: Two major projects hanging fire for some years, appear to be ready to go soon. The first 0.6-mile of the Broad St. subway southern extension to Pattison Ave. is being advertised for construction bids. In succeeding months, other phases of that line and the much longer northeast extension of the Broad St. subway will go into the bidding and then construction stage.

The other project, the mid-town tunnel connecting the Reading and Penn Central commuter lines below the downtown area, is apparently almost out of the woods. Legal complications held up the $23-million application for a DOT capital grant, but sources close to the situation think the logs will unjam soon.

More long range is a car-buying program for commuter lines, as part of the SEPTA master plan. Sources of large sums of cash are few at this point, but some small windfalls, together with anticipated federal, state and local aid will create a "kitty" with which to start financing more Silverliners.

. . . and across the river: The Delaware River Port Authority called off service by Lindenwold trains through Camden into Philadelphia, which was scheduled to begin Feb. 1. Some minor signal difficulties were cited. It's thought they will be cleared up soon, and the service can begin. The DRPA line runs now between Camden and Lindenwold.

Who will pay for Loop subways? The Chicago scheme, made public by city officials last year, calls for removal of the present El and construction of two underground distributor lines through the downtown area, at a cost of $478 to $600 million (RA, July 1/8, 1968, p. 23).

Federal grants would presumably go a long way, but a substantial sum would still have to originate locally—and that's the rub, where voters and property owners are concerned.

City officials would like some move in the matter this year. They're looking at proposals for a general obligation bond issue, an assessment on downtown properties, and creation of a downtown special district with taxing authority.

In a report to the city, a consultant pointed out that the new Loop subways would increase the market value of business property in the area by at least $1.8 billion by 1990. The same consultant concluded that if the subways are not built, necessary street-widening and extra expressways would wind up costing the city just as much as transit, anyway.

Transit looks bullish: So says the US Industrial Outlook for 1969, just published by the Commerce Department's Business and Defense Services Administration.

BDSA expects delivery of 450 new transit and 300 new commuter cars in 1969. No figure for new 1969 orders is given, but the report goes on to say that extensions of existing systems, plus the new one at BART, "should make

1969 the best year in the past six for manufacturers of rail passenger equipment and accessories."

More park 'n' ride in Cleveland: The Brook Park station on the airport line is due to be open to the public in late March. The station has a 1,100 parking lot for commuters who don't want the headache of driving downtown.

Due out very soon is the final report on transportation needs in the Cleveland area through 1990. The Cleveland-Seven County Transportation Land Use Study Group (SCOTS) issued a preliminary report last year (RA, Sept. 2, 1968, p. 24) recommending an additional 70 miles of rapid transit.

New York tunnel is set—maybe: The waiting game for a new subway tunnel under the East River at 63rd St. may be over at last, but then again, you never know.

Long a prominent feature in New York City Transit Authority plans to relieve congestion on IND Queens lines, the tunnel was put off for years, owing to lack of money, and opposition from citizens' groups which wanted it rerouted. When it finally seemed that something would happen, the design had to be modified from two tracks to four tracks, after an agreement was reached to share the tunnel with the LIRR.

With passage of the state's big transportation bond issue last year, it was widely assumed that a start on digging would come right away. Detailed plans exist now, and bids could be advertised early this spring, provided a number of administrative actions—especially formal approval from the city's Board of Estimate—can be nailed down soon.

As for the coming Second Avenue subway, detailed specifications are not likely before later in the year. Governor Rockefeller, in his budget message to the state legislature, reiterated support for this and the other subway construction schemes outlined in the master plan of a year ago, and he also called for 500 air-conditioned subway cars.

Master plan for Boston: At the end of last week, the Massachusetts Bay Transportation Authority was due to submit its revised master plan, as directed by the state legislature.

One thing is a sure bet: Cost estimates for construction and purchase of equipment are bound to go up. The previous master plan carried a price tag of $369 million; the new one may be half again higher or more.

Also likely to figure strongly in the revised plan is some proposal for a new basis for contract rail commuter service.

Present projects such as line extensions and station modernization (RA, Nov. 4, 1968, p. 14), don't seem jeopardized, and a start in the near future is not unlikely on some further line extensions envisioned in the earlier plan—notably in the western and northeastern corridors.

Recent contracts awarded by MBTA were to three construction contractors for modernizing the Haymarket, Copley and Prudential stations; to WABCO for automatic car identification equipment for the South Shore extension; and to RAMCO for trackwork and concrete crossties (a first on MBTA) on that extension.

Transit overseas: The firm in charge of building the Sao Paulo (Brazil) Metro called for bids on 198 subway cars. Foreign bidders must be in a consortium with local firms. Engineering consultants are West German. . . . The firm in charge of building the Rio de Janeiro Metro wants prequalification bids and turnkey offers to build the first three miles of subway. . . City planners in Seoul, Cairo and Casablanca are all looking for financing for rapid transit systems. . . The first section of the Cologne subway opened for operation. . . Plans were approved for an airport access line of German Federal Railway to Rhine/Main airport from Frankfurt, Wiesbaden and Mainz, using fast trains. . . A similar scheme was already approved for Stuttgart and its airport. . . the first east-west line of the Mexico City system will be finished this spring.

Whither Montreal Expo cars? When Hawker-Siddeley built 48 aluminum air-conditioned cars for Montreal's Expo '67, it was understood from the start that such cars, with sophisticated automatic driving controls, were far too valuable to scrap, once the Fair was over.

The problem is, will Montreal keep running the Fair each summer, or will some other city in need of cars take them at a second-hand price?

The City of Montreal repeated the Fair in 1968, with the cars on hand, of course, so the problem was temporarily put on ice. Meanwhile the City of Edmonton, long interested in rapid transit and with rail rights of way considered feasible for a transit operation, began to make approaches.

For a time, New York's MTA considered bidding on the cars also, to get a new fleet on tracks of the Staten Island Rapid Transit System.

At the moment, the cars remain the property of the City of Montreal, which intends to have another Expo this summer, although with a shorter rail run.

This creates interesting possibilities: Edmonton, which is still reportedly interested in the cars, might take about half of them for now—enough to get a system started—while Montreal used the other half at the Fair.

Everything, of course, depends on the attitude of the Expo promoters.

Baltimore plans—and plans: Now that feasibility studies are in, recommending a $1.7 billion system (RA, Jan. 6/13, p. 28), the next step is for the legislature to create a statutory body to plan, construct and operate such a system. Baltimore planners want tide-over planning funds in the meantime.

More high speed in New England? A report on future transport needs in this area puts the spotlight on high-speed trains—and asks for a lot more of them.

The report, prepared by Systems Analysis and Research Corp. for the New England Regional Commission (a federal-state planning body), called frequent high-speed rail service between New York and Boston an urgent requirement: They suggested at least 10 trains daily operating on 2½-hour schedules or faster.

The report envisions using electric traction, but does not rule out turbine-powered trains.

In line with this idea, the consultants proposed an international jetport located about the half-way mark on the New York-Boston rail line. Such a facility could take much of the strain off the present New York and Boston jet airports and also be a logical jumping-off point for overseas service by SST: Planes would be over water almost immediately after takeoff.

The Commission accepted the report non-committally but asked for a followup study in detail on the high-speed rail aspects. That report is due some time late this winter or early spring.

Transport center for Toronto: Officials of the Canadian National and Canadian Pacific Railways, Government of Ontario Transit, and Toronto Transit Commission are working with city officials and real estate developers on a billion-dollar plan to develop the Union Station area as a multi-modal transport center and office building complex.

NTSB wants better track standards

Penn Central and the American Railway Engineering Association should revise their track inspection and maintenance standards to provide objective measures of conditions and criteria for correction, the National Transportation Safety Board says.

This follows from a study of a derailment Jan. 1, 1968, that led to a gas explosion and the evacuation of Dunreith, Ind. Derailed cars from a westbound Penn Central train struck five coupled tank cars of hazardous materials in an eastbound train. The Board finds the probable cause of the derailment was a broken rail in a compromise joint binding two sizes of rail.

A contributing causal factor, the Board says, was inadequate track maintenance that left the joint unsupported and allowed development of the rail break.

"Decisions as to adequacy of track conditions should not be solely dependent upon variable judgment or interpretation of individuals, but should be made according to objective measurements required by written enforceable rules," the Board says.

Other recommendations include:

—The AREA and the AAR should initiate research to improve present rail-joint design.

—PC and the industry generally should use "to a greater degree" available rail-flaw detector equipment and available technical knowledge to insure more dependable ways to detect rail defects within joints with more accuracy.

Another NTSB recommendation, an investigation of the possibility of separating cars of hazardous materials in trains with cars containing inert ladings, was given new impetus late in January when a Southern freight train derailment at Laurel, Miss., put 26 cars of butane gas off the track with subsequent explosions and fires destroying 16 of the 33,000-gallon tankers, 30 homes, a pair of warehouses and a small manufacturing plant. NTSB dispatched an investigator to the scene, noting that the same northbound train had been involved in two other tank-car derailments within the previous two weeks. In one, an explosion hurled a tank 2,000 feet and in the other it was necessary to evacuate half the population of an Alabama community. ■

LUTHER MILLER

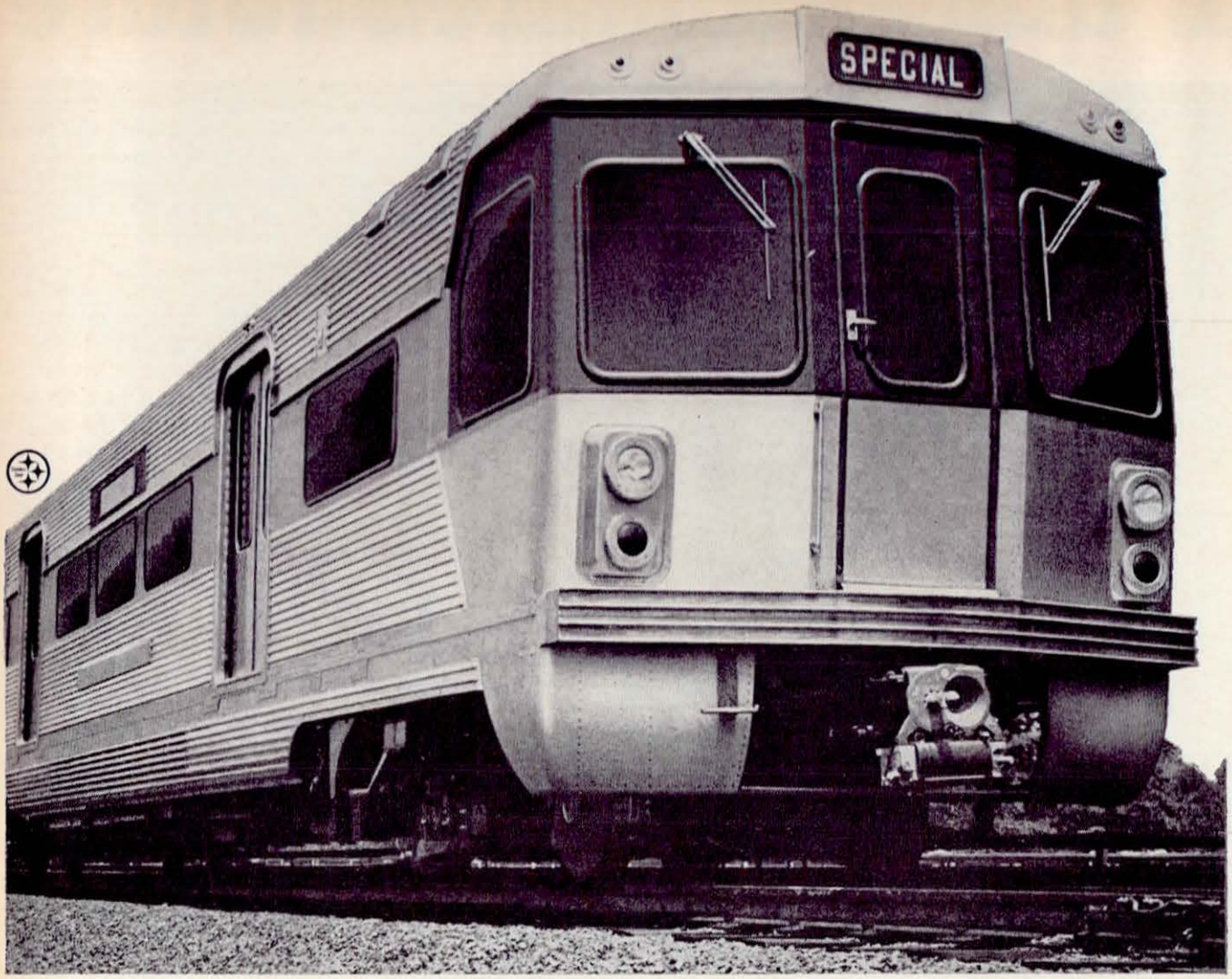
AS THE EDITOR SEES IT

WELCOME, A. S. B.—At his first press conference as a railroad president-designate, Alan S. Boyd made one thing very clear, in his disarming, plain-spoken fashion: He is no railroad man—yet. But what also came through, strong and clear, was this: Alan Boyd is a transportation man. That truth—and truth it is to all who know this remarkable man—may prove in years to come to be of exceptional importance to the railroad industry.

A NEEDED LEADER . . .—Boyd will be the day-to-day operating officer of the Illinois Central, and the men who hired him have no doubt that he will make an uncommonly good one—just as he has done uncommonly well in every other job he has held. But any Class I railroad president is, apart from his day-to-day duties, also a leader on the national railroad scene. To such a position of leadership, Alan Boyd will bring unique skills.

. . . AT A PROPITIOUS TIME—Boyd joins our industry at a time when railroads are more than ever aware that, if they are to survive, they must cease being regional railroad companies, all too loosely tied together by the AAR's Code of Interchange Rules, and become, instead, national transportation companies. In announcing Boyd's appointment, William B. Johnson (who will become chairman and chief executive officer of the railroad and of parent Illinois Central Industries) commented: "In my view, Mr. Boyd will provide outstanding leadership for IC." In our view, he will also, given the opportunity, provide outstanding leadership for the industry. His background as chairman of the Florida Railroad and Public Utility Commission; as member and chairman of the Civil Aeronautics Board; as Undersecretary of Commerce; as Secretary of Transportation—all of this, as Mr. Johnson pointed out, will be increasingly valuable "as the time approaches when the public interest demands more and more of the benefits that can be generated by intermodal operations."

WHY A RAILROADMAN?—Cabinet officers of Alan Boyd's prestige do not have to seek jobs; jobs seek them. It is known that Boyd turned down other offers (and some handsome ones) to become a railroadman. Why? Because, Boyd said, he wanted to join a growth industry. Because, he said, Bill Johnson assured him that the railroad would never take second place to any other IC enterprise. Because—one got the strong feeling, listening to Boyd in Pittsburgh—he feels that there's a place for transportation men in the railroad business. Atta Boyd!



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...and here today! New lightweight nickel stainless steel cars for high-speed commuter service are now being delivered to major transportation systems. This car, one of 75 built by The Budd Company for the Delaware River Port Authority, will serve the Philadelphia and southern New Jersey area as a combination subway-commuter car. Stainless steel's high strength-to-weight ratio makes possible car structures as light as those of aluminum... but with these extra advantages:

Durability – Resists corrosion, abrasion damage and the severe scuffing conditions found in transit car operation.

Minimum Maintenance – Stainless needs almost no maintenance – never needs coating or painting.

Safety – High strength and ductility let stainless absorb impact energy – minimize collision damage.

Pleasing appearance – Stainless' original brightness lasts for life – requires only an occasional wash.

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Circle 14 on coupon page 36

NTSB wants better track standards

Penn Central and the American Railway Engineering Association should revise their track inspection and maintenance standards to provide objective measures of conditions and criteria for correction, the National Transportation Safety Board says.

This follows from a study of a derailment Jan. 1, 1968, that led to a gas explosion and the evacuation of Dunreith, Ind. Derailed cars from a westbound Penn Central train struck five coupled tank cars of hazardous materials in an eastbound train. The Board finds the probable cause of the derailment was a broken rail in a compromise joint binding two sizes of rail.

A contributing causal factor, the Board says, was inadequate track maintenance that left the joint unsupported and allowed development of the rail break.

"Decisions as to adequacy of track conditions should not be solely dependent upon variable judgment or interpretation of individuals, but should be made according to objective measurements required by written enforceable rules," the Board says.

Other recommendations include:

—The AREA and the AAR should initiate research to improve present rail-joint design.

—PC and the industry generally should use "to a greater degree" available rail-flaw detector equipment and available technical knowledge to insure more dependable ways to detect rail defects within joints with more accuracy.

Another NTSB recommendation, an investigation of the possibility of separating cars of hazardous materials in trains with cars containing inert ladings, was given new impetus late in January when a Southern freight train derailment at Laurel, Miss., put 26 cars of butane gas off the track with subsequent explosions and fires destroying 16 of the 33,000-gallon tankers, 30 homes, a pair of warehouses and a small manufacturing plant. NTSB dispatched an investigator to the scene, noting that the same northbound train had been involved in two other tank-car derailments within the previous two weeks. In one, an explosion hurled a tank 2,000 feet and in the other it was necessary to evacuate half the population of an Alabama community. ■

LUTHER MILLER

AS THE EDITOR SEES IT

WELCOME, A. S. B.—At his first press conference as a railroad president-designate, Alan S. Boyd made one thing very clear, in his disarming, plain-spoken fashion: He is no railroad man—yet. But what also came through, strong and clear, was this: Alan Boyd is a transportation man. That truth—and truth it is to all who know this remarkable man—may prove in years to come to be of exceptional importance to the railroad industry.

A NEEDED LEADER . . .—Boyd will be the day-to-day operating officer of the Illinois Central, and the men who hired him have no doubt that he will make an uncommonly good one—just as he has done uncommonly well in every other job he has held. But any Class I railroad president is, apart from his day-to-day duties, also a leader on the national railroad scene. To such a position of leadership, Alan Boyd will bring unique skills.

. . . AT A PROPITIOUS TIME—Boyd joins our industry at a time when railroads are more than ever aware that, if they are to survive, they must cease being regional railroad companies, all too loosely tied together by the AAR's Code of Interchange Rules, and become, instead, national transportation companies. In announcing Boyd's appointment, William B. Johnson (who will become chairman and chief executive officer of the railroad and of parent Illinois Central Industries) commented: "In my view, Mr. Boyd will provide outstanding leadership for IC." In our view, he will also, given the opportunity, provide outstanding leadership for the industry. His background as chairman of the Florida Railroad and Public Utility Commission; as member and chairman of the Civil Aeronautics Board; as Undersecretary of Commerce; as Secretary of Transportation—all of this, as Mr. Johnson pointed out, will be increasingly valuable "as the time approaches when the public interest demands more and more of the benefits that can be generated by intermodal operations."

WHY A RAILROADMAN?—Cabinet officers of Alan Boyd's prestige do not have to seek jobs; jobs seek them. It is known that Boyd turned down other offers (and some handsome ones) to become a railroadman. Why? Because, Boyd said, he wanted to join a growth industry. Because, he said, Bill Johnson assured him that the railroad would never take second place to any other IC enterprise. Because—one got the strong feeling, listening to Boyd in Pittsburgh—he feels that there's a place for transportation men in the railroad business. Atta Boyd!

Fourth International Conference on Urban Transportation

Pittsburgh, Pennsylvania
March 10, 11, 12, 1969

CONFERENCE CONCEPT:

Transportation: Lifeline of an Urban Society

Pittsburgh is proud to host again this year the annual International Conference on Urban Transportation.

Our program lists many of the world's leading professionals on the problems of the urban environment, emphasizing transportation, and ways that are being used to reach solutions. Speakers include officials of federal, state and municipal government, educational and civic leaders, transportation experts and key members of corporate management and labor.

You will hear many pros — and some cons — at the conference, examine in detail methods that have worked in diverse urban situations, learn how some failed, and take away with you knowledge of the concepts, methods and experience of others.

Transportation in our cities is everybody's problem today. We believe the Fourth Annual International Conference on Urban Transportation will be a forum of awareness, creativity and action.

William Carpenter
Conference Chairman

Pittsburgh Urban Transit Council
945 Union Trust Building
Pittsburgh, Pennsylvania 15219

Please send complete information and registration forms for the Fourth International Conference on Urban Transportation.

Name_____

Company or Agency_____

Address_____

City_____ **State/Zip**_____

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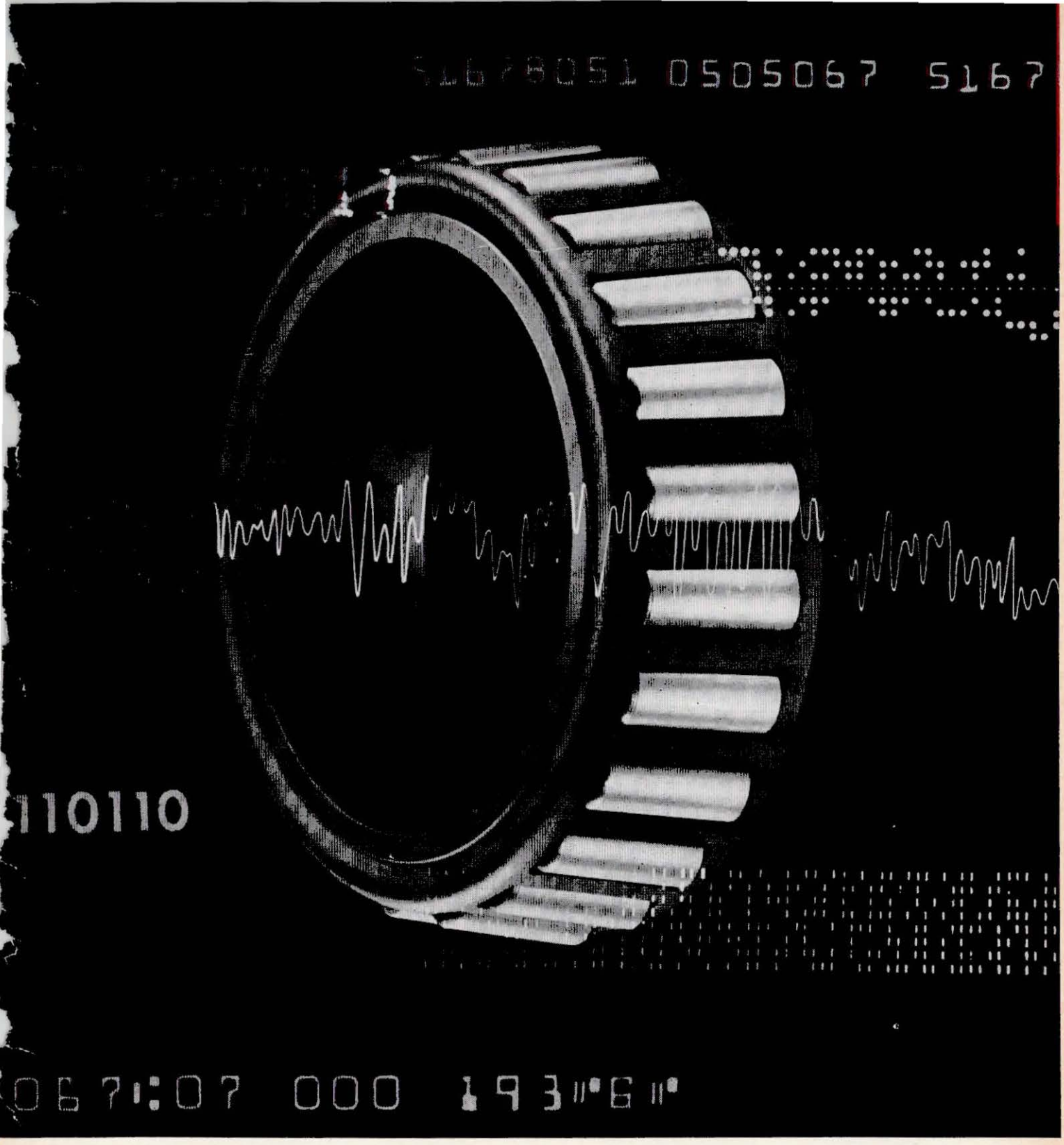
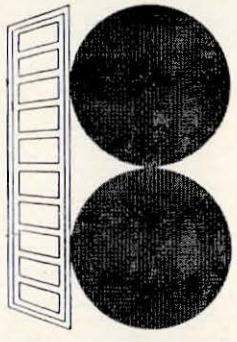


A modern bearing for a new Age...

Brenco *crown-taper* roller bearings are the most modern of all.

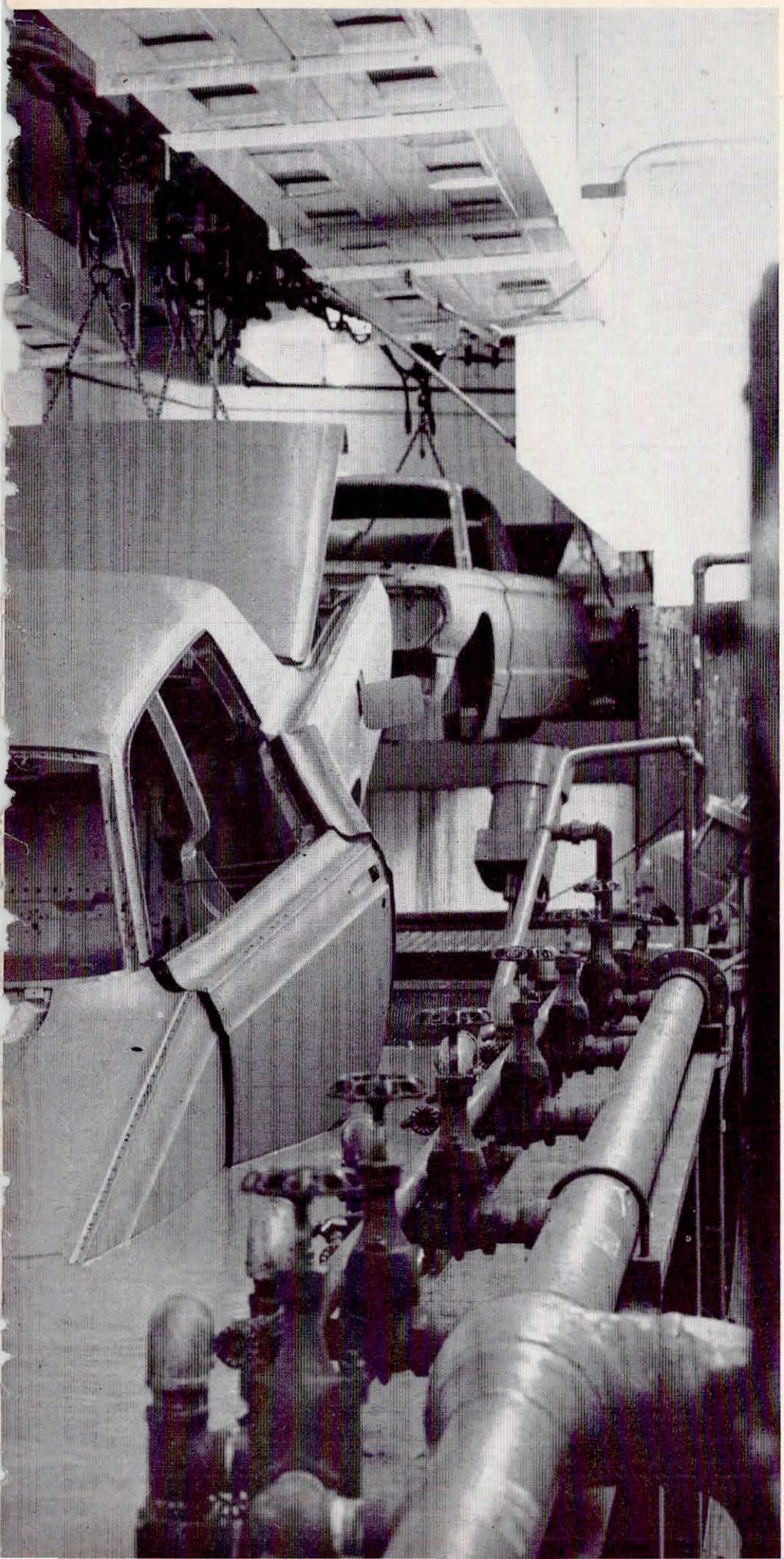


BRENCO, INCORPORATED
PETERSBURG, VIRGINIA

Circle 12 on coupon page 36

The railroad idea: ke

to our automated future



See the overhead track guiding those bodies through the rust-proofing tank? No one has to cock an eye or lift a finger.

We need *more* of this!

For America to hold its own in the world, fewer of our people must perform simple, mechanical-style functions that machines perform better and at lower cost —more people must be efficiently applied to making things and performing services of which we don't have enough.

That means automation. And automation means *guided movement* the railroad idea.

Take away a factory's assembly line, conveyors, transfer machines, the guiding slides on which tool heads travel—and you can forget automation. Without guided movement, a factory's sensing devices and programming equipment would be useless.

In the transportation field, scientists struggle to develop a practical guidance system for cars and trucks. Guiding trolleys? Electronic guidelines buried under the pavement? The complexity of the total problem is staggering.

Actually, the railroad—with its inherent and fantastically efficient guided movement system —its rails—is best qualified to be the basic mass transportation system of the future.

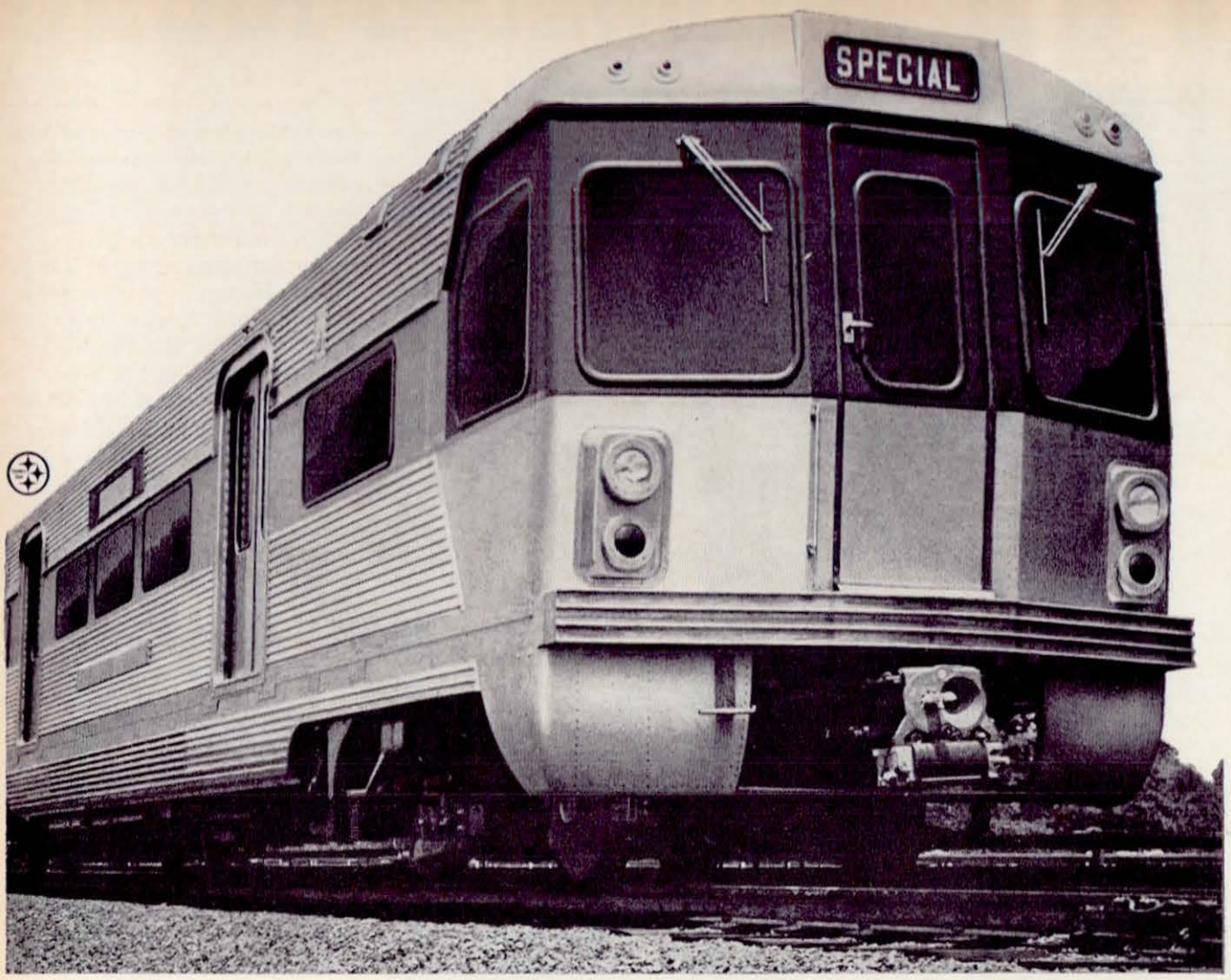
But railroaders are not resting on the classic advantages of the train. They're developing new ones all the time . . . giant unit trains . . . new loading and unloading devices . . . a whole new spectrum of specialized cars . . . new signaling, communication, computerization . . . welded rail . . . new m/w machines . . . new—you name it!

Where do railroaders keep up with all this? Through the pages of weekly RAILWAY AGE. What a place to tell people about *your* advantages!

Be part of the weekly excitement in

RAILWAY AGE

the transportation weekly



The future for commuters is lighter...brighter...faster.

...and here today! New lightweight nickel stainless steel cars for high-speed commuter service are now being delivered to major transportation systems. This car, one of 75 built by The Budd Company for the Delaware River Port Authority, will serve the Philadelphia and southern New Jersey area as a combination subway-commuter car. Stainless steel's high strength-to-weight ratio makes possible car structures as light as those of aluminum...but with these extra advantages:

Durability—Resists corrosion, abrasion damage and the severe scuffing conditions found in transit car operation.

Minimum Maintenance—Stainless needs almost no maintenance—never needs coating or painting.

Safety—High strength and ductility let stainless absorb impact energy—minimize collision damage.

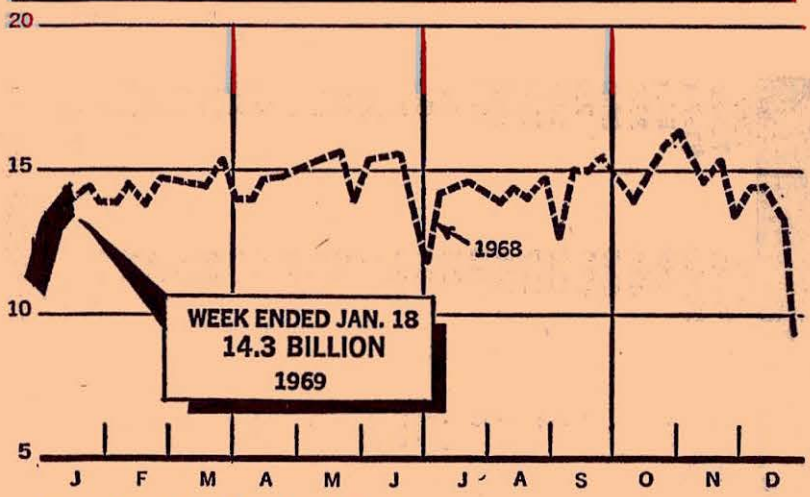
Pleasing appearance—Stainless' original brightness lasts for life—requires only an occasional wash.

Want more information? Write for "Nickel Stainless Steel... The Modern Material for Modern Transit." The International Nickel Company, Inc., 67 Wall Street, New York, N. Y. 10005.

INTERNATIONAL NICKEL

RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



Source: Association of American Railroads

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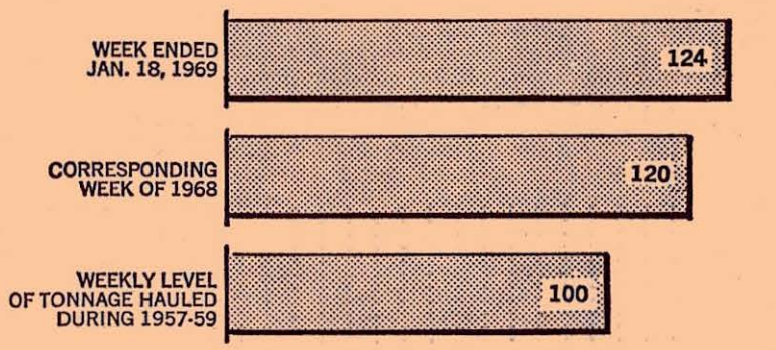


Source: American Trucking Associations.

Current Statistics

Net income, Class I roads	
Nine months, 1968	$386,000,000
Nine months, 1967	342,200,000
New freight cars on order	
Dec. 1, 1968	26,934
Dec. 1, 1967	21,816
New freight cars delivered	
11 mos., 1968	51,692
11 mos., 1967	77,612
Serviceable cars	
Dec. 1, 1968	1,385,269
Dec. 1, 1967	1,414,632

DEPARTMENT OF DEFENSE TRANSPORTATION COSTS—FISCAL YEAR 1968

(millions of dollars)

COMMODITY GROUP	RAIL	MOTOR	AIR	OTHER	1968 TOTAL	1967 TOTAL
Ammunition & explosives	$175.1	$ 88.2	$ 0.8	$ 0.9	$264.9	$197.4
Iron & steel articles	15.1	27.6	2.5	3.3	48.5	54.6
Petroleum products	4.2	7.4	a	20.9	32.6	31.0
Electrical equipment & parts	6.2	10.9	2.7	1.8	21.6	23.2
Ordnance	3.8	7.7	0.5	0.4	12.5	7.6
Containers, all kinds	7.6	4.0	0.1	0.3	12.0	14.0
Machinery parts	3.6	6.2	1.2	0.7	11.7	10.9
Provisions (other than fresh, frozen, chilled)	8.6	2.2	a	0.1	10.8	14.8
Military vehicles	6.9	3.3	a	a	10.3	9.9
Coal	8.6	a	...	...	8.6	7.6
Vehicles, other than motor driven	3.2	5.1	a	0.1	8.4	8.5
Airplanes & aircraft parts	0.9	5.6	0.7	0.7	7.9	7.4
Military impedimenta	4.7	0.6	1.1	0.4	6.7	7.2
Automobile parts	2.5	2.8	0.6	0.4	6.4	7.3
Autos, freight	6.3	a	...	a	6.3	5.7
Provisions, perishable	0.8	5.2	a	a	6.0	6.4
Furniture*	2.9	1.5	a	0.2	4.6	6.3
Chemicals*	2.3	1.8	0.1	0.1	4.3	3.9
Autos, passenger	1.6	1.4	...	a	3.0	2.6
Gases, other than petroleum	1.1	1.6	a	0.2	2.9	5.3
Vehicles, motor*	1.6	1.2	a	a	2.8	3.5
Printed matter*	0.6	1.1	0.6	0.2	2.4	2.5
All other commodities	28.8	63.8	3.6	7.7	103.9	97.0
Total all commodities	296.9	249.3	14.4	38.5	599.1	534.6

*Not otherwise specified. (a) Less than $500,000.

NOTE: Due to rounding, figures may not add to totals.

SOURCE: Military Traffic Management and Terminal Service.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Jan. 25 totaled 510,331 cars, the Association of American Railroads announced on Jan. 30. This was a decrease of 12,489 cars, or 2.4%, compared with the previous week; a decrease of 17,761 cars, or 3.4%, compared with the corresponding week last year; and a decrease of 16,453 cars, or 3.1%, compared with the equivalent 1967 week. Ton-miles generated by carloadings in the week ended Jan. 25 are estimated at 14.0 billion, a decrease of 2.9% below the corresponding week of 1968, and an increase of 2.1% above the 1967 week.

REVENUE FREIGHT CARLOADINGS

Commodity	Jan. 18 week	Preceding week	Per Cent change
Grain	21,662	20,408	+6.1
Farm products	20,640	19,279	+7.1
Metallic ores	16,633	15,378	+8.2
Coal	102,575	97,512	+5.2
Crushed stone, gravel & sand	22,096	20,164	+9.6
Nonmetallic minerals	9,911	9,645	+2.8
Grain mill products	20,658	19,810	+4.3
Food & kindred products	25,648	24,953	+2.8
Primary forest products	26,018	24,884	+4.6
Lumber & wood products (except furniture)	15,296	14,649	+4.4
Pulp, paper & allied products	24,129	23,255	+3.8
Chemicals & allied products	29,101	27,580	+5.5
Petroleum products	13,102	12,589	+4.1
Stone, clay & glass products	18,902	17,485	+8.1
Coke	8,106	7,929	+2.2
Metals and products	28,276	26,503	+6.7
Motor vehicles & equipment	24,861	23,859	+4.2
Waste and scrap materials	13,910	13,215	+5.3
Forwarder & shipper association traffic	6,100	6,206	−1.7
All other carloads	73,061	69,739	+4.8
LCL traffic	2,135	1,975	+8.1
Total cars loaded	522,820	497,017	+5.2

CUMULATIVE TOTAL THREE WEEKS	1969	1968	1967
	1,433,976	1,411,890	1,522,203

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Jan. 18 totaled 24,373 cars, carrying 40,288 trailers, compared with 23,756 cars, carrying 39,196 trailers, in the corresponding 1968 week. Loadings for 1969 up to Jan. 18 totaled 64,361 cars, carrying 105,842 trailers, compared with 64,265 cars, carrying 105,535 trailers, in the corresponding period of 1968.

IN CANADA

Seven-Day Period Ended	Revenue Cars Loaded	Total Cars Rec'd from Connections
Jan. 7, 1969	50,174	18,566
Jan. 7, 1968	49,733	18,015

FREIGHT-TRAIN CARS

● *Trailer Train.*—Ordered 75 89-ft, 4-in. standard-level flat cars from Bethlehem. As of Jan. 20, TTX had 48,861 cars in service or on order.

CAPITAL SPENDING

● *Alton & Southern.*—St. Louis-area terminal road, now owned by Missouri Pacific and Chicago & North Western, budgeted more than $3 million for 1969 improvements. On the program: Purchase of six diesel-electric locomotive units; renovation and improvement of control systems at East St. Louis, Ill., classification yard; construction of car repair and diesel-service facilities; numerous changes in track, communications, signal and interchange facilities.

NEW FACILITIES

● *Northern Pacific.*—Awarded a contract totaling an estimated $1.6 million to General Railway Signal to modernize a 47-track yard at Pasco, Wash. The yard will be equipped with Class-Matic Mark II, the GRS freight terminal control and information system.

● *Penn Central.*—Awarded a contract valued at approximately $1.7 million to General Railway Signal to equip and automate a new 40-track classification yard at Columbus, Ohio. The yard will utilize Class-Matic Mark II, the GRS freight terminal control and information system.

● *Santa Fe.*—1969 fixed-plant improvement program will include renewal of 417 track miles with continuous welded rail; completion of a new electronic classification yard at Kansas City, Kans.; expansion of diesel facilities at Kansas City and at Barstow, Calif.; installation of new TOFC and freight-handling facilities at Dallas; installation of additional TOFC facilities, including an overhead crane, at Richmond, Calif.; and installation of new automobile-handling facilities at Chicago.

SPECIAL

● *Canadian National.*—Awarded a contract to Paceco, division of Fruehauf Corp., for a 40-ton-capacity, 74-ft-span TOFC/COFC gantry crane for installation at Toronto.

● *Delaware & Hudson.*—Purchased 15 REM-GUN high-capacity-pressure cleaning guns from Railway Equipment & Methods Co.

● *Louisville & Nashville.*—Directors approved acquisition of 14 spot tampers, four tie handlers, four tie saw-removers, and four tie scarifier-inserters, plus 20 four-man house trailers for use by specialized-maintenance crews.

YOU OUGHT TO KNOW

Transportation Conference set by AIIE

The Transportation Division of American Institute of Industrial Engineers has scheduled a two-day conference on March 6 and 7 at the Marriott Twin Bridges Motor Hotel in Washington, D.C. The program, Effective Transportation for the Nation, has been arranged to interest individuals involved in all facets of the movement of people and goods. A. E. Perlman, Penn Central president, will be one of the speakers.

Vacancies filled on Senate Committee

New members of the Senate Commerce Committee include: Howard H. Baker, Jr. (R.-Tenn.); William B. Spong, Jr., (D.-Va.); Daniel K. Inouye (D.-Hawaii); Charles E. Goodell (R.-N.Y.); and Joseph D. Tydings (D.-Md.) The Committee now has 11 Democrats and eight Republicans. The previous split was 12 and six. Commerce subcommittee appointments remain to be settled.

Moving day's coming for UTU top brass

Many of the top officers of the new United Transportation Union will have new mailing addresses, once UTU gets through with a planned relocation program. The President's Department, headed by Charles Luna, will be based at the headquarters of the former Brotherhood of Locomotive Firemen & Enginemen in Lakewood, Ohio, one of Cleveland's western suburbs. Financial and insurance departments of UTU will be housed in the downtown-Cleveland offices of the former Brotherhood of Railroad Trainmen.

Design firm named for IC commuter cars

When new suburban service equipment goes into service on Illinois Central in mid-1970, it will bear the design stamp of Sunberg-Ferar, whose work in the transit field includes design of the new Long Island commuter cars and the equipment proposed for San Francisco's BART. The choice of Sunberg-Ferar was made by the Chicago South Suburban Mass Transit District, which will acquire the new cars and lease them to IC for operation. Design work will be done in three phases—first, development of basic interior and exterior design; second, construction of a full-size mockup of a 22-foot section of a car and construction of a ⅛-size model of a completed car; and third, preparation of detailed specifications and drawings.

NP planning residential land project

Northern Pacific is making its first entry into the field of urban land development, through a joint venture of R. A. Watt Co., a subsidiary of Boise Cascade Corp., and The Monad Co., a subsidiary of NP. Watt and Monad, operating as Mo-Watt Properties, will develop about 170 acres near Renton, Wash., for residential homesites and related uses. In announcing the joint project, C. R. Binger, NP vice president-resources and development, called it "a natural extension of our efforts to achieve maximum utilization from the company's lands and resources."

Grand Trunk billboard wins a blue ribbon

Grand Trunk Western has won first place, and an "Obie," in the local billboard category of the 36th annual outdoor advertising competition. The prize-winning billboard carried the message, "No strain. Train. Commute GT." It was posted along a highway paralleling GT's suburban Pontiac-Detroit commuter line.

UP division finds uranium, will test-drill

Union Pacific's Natural Resources Division last week announced the discovery of commercial grade uranium ore in the Powder River Basin, Wyoming. A development drilling program is planned.

RAILWAY BOOKSHELF

"Passenger Transportation" is a book of readings selected from a marketing viewpoint (Michigan State University, East Lansing, Mich. 48823; 658 pp., $9.50). The editor is Stanley C. Hollander, Professor of Marketing in the university's Graduate School of Business Administration. "The papers in this volume," says Dr. Hollander in his preface, "explore various aspects of the travel market, the services that attract traffic, the problem of pricing those services, promotional programs and marketing channel relations, the problems of competition and monopoly, the pattern of government regulation, and the outlook for the future."

Dr. Hollander has concentrated his attention on intercity and international common carrier passenger service by all modes: air, rail, bus and steamship. The readings have been drawn from a wide variety of American and foreign sources, including trade magazines, scholarly journals, symposia, proceedings, law reviews, government investigations, regulatory commission rulings and carrier-sponsored studies.

●

"Focus: The Railroad in Transition" (A. S. Barnes & Co., South Brunswick, N.J., and New York City; 260 pp., $15), is a photographic essay that deals with the American railroads since 1947. The author, Robert S. Carper, is Director of Administrative Services with the Southwestern Pennsylvania Regional Planning Commission. The SPRPC is entrusted with developing plans for regional transportation systems for the metropolitan Pittsburgh area.

Within the years covered by the book, says Mr. Carper's introduction, "the railroads have passed through the most remarkable transition in their entire history. By their own hand, unaided by any subsidy, they have cast out a traditional form of motive power which had been a legend in its own time for a radically new form of locomotive, saving untold millions of dollars" Text and more than 200 superb photographs, nearly all taken by the author, tell where railroads have been—and where they are going.

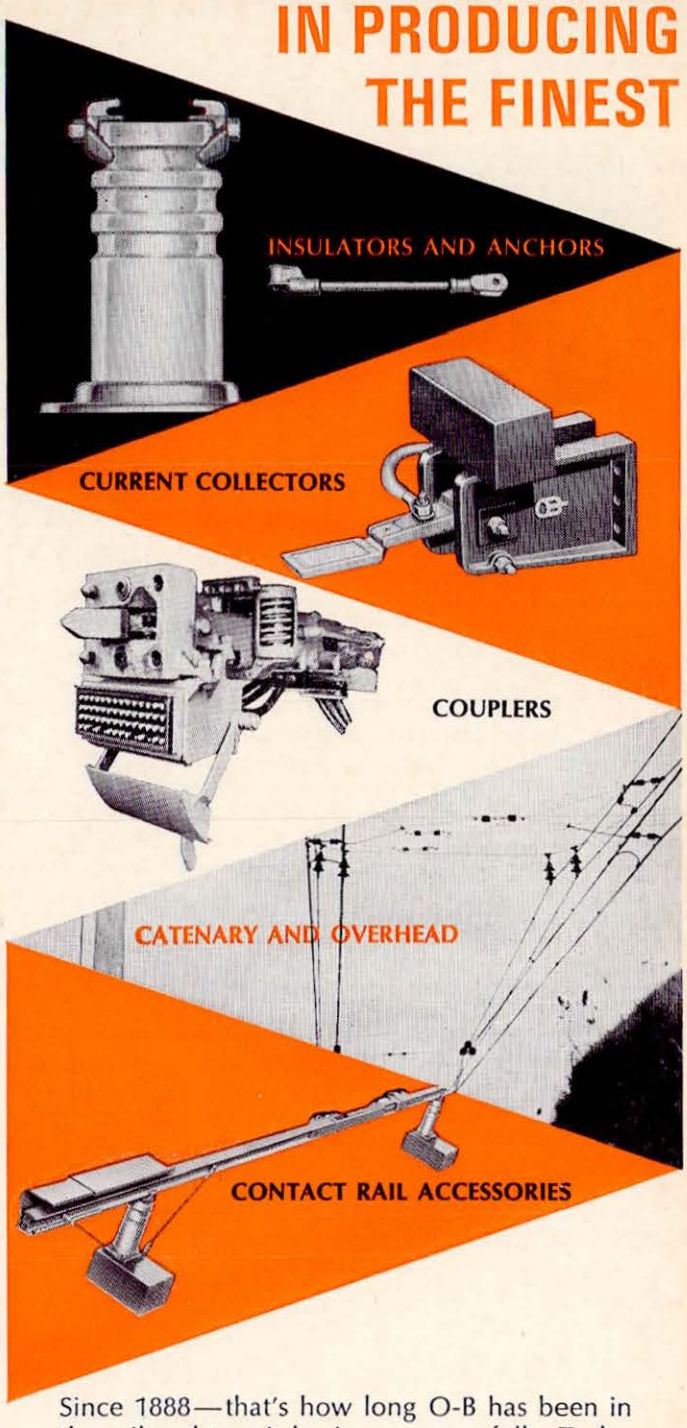
●

The 74th edition of the "Railway Directory & Year Book" (Transport & Technical Publications, Ltd., 161/166 Fleet St., London, E. C. 4, England, 80 shillings), reflects the extensive changes, both in organization and equipment, in railways throughout the world. Among the new features of the 1968-69 edition is a section on urban rapid transit systems—existing, under construction or planned. A section on brakes has been added and the section on containerization has been greatly augmented and revised. The progress of railroad electrification has been recorded in a separate section, and a new article discusses systems of traction and transmission.

●

"Small Shipments" (DTA Services Ltd., 1815 Yonge St., Toronto 7, Canada; 55 pp., $5.00), is a mimeographed, paperbound survey of the small-shipments problem which contains specific suggestions for both customers and carriers. One general conclusion is this: "Carriers must accept the fact that they occasionally will have to take unprofitable freight. Otherwise they face the possibility of government control and a lessening of freedom. Shippers, on the other hand, must appreciate the expenses involved for the carrier of smalls and search for other means than rate reduction for economizing."

81 YEARS OF SUCCESS IN PRODUCING THE FINEST



Since 1888—that's how long O-B has been in the rail and transit business successfully. Today we produce contact-rail insulators of the best wet-ware porcelain, durable rail anchors, lightweight, low-cost current collectors, couplers, catenary and overhead equipment, and contact-rail accessories. Your O-B district manager can give you full particulars—or contact Mansfield direct. 81 years is a lot of experience. 666-T

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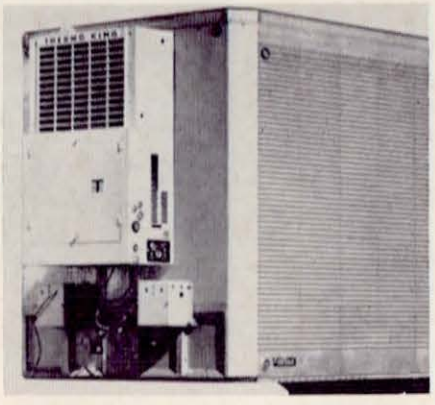
OB OHIO BRASS

Circle 13 on coupon page 36

NEW PRODUCTS REPORT

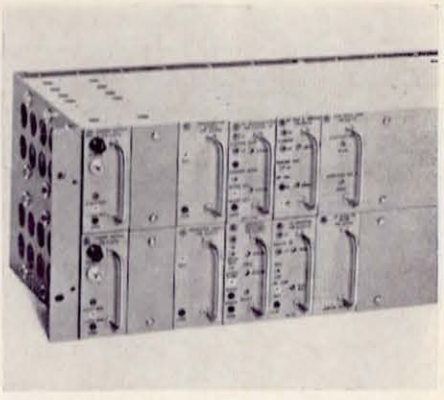
Warning device (RA-1)

The Stop-and-Slow Paddle, a lightweight device made of ABS plastic, is said to reduce flagman fatigue and encourage his use of it. The paddle is over 10 in. long and has a sign surface 15 in. in diameter. Handle is adjustable for different holding positions. Bright colors (SLOW, yellow diamond with black letters; STOP, red octagon with white letters) are said to make the paddle highly visible from great distances. *Borg-Warner Corp.*



Refrigeration unit (RA-2)

A new two-cylinder, diesel-powered transport refrigeration unit has been introduced. The unit, called Model RLD, has a capacity of 23,000 Btu/hour at 35 deg. ambient, and 13,000 Btu/hour at 0 deg. ambient. The Mercedes-Benz engine is rated at 13 hp at 2,200 rpm. Cooling and heating is provided automatically according to thermostat demand. The unit is said to be ideal for double-bottom applications. No undermounts are required. *Thermo King.*



Data modern (RA-3)

The model 3227 data modem is a coherent data set that can be used for data speeds of up to 1200 bits/second and higher over data lines. It is basically a three-state, frequency shift data channel containing circuitry to combine clock and data inputs, transmit them, and deliver them separately but synchronized at the receiving end. The unit may be powered from AC or DC, with DC to DC converters available for isolation. *RFL Industries Inc.*

Crossing control (RA-4)

A new system utilizing closed loop fail-safe circuit principle has been designed to achieve simple, automatic and economical control of flashers and gates at railroad crossings in busy low-speed industrial switching areas. The system automatically determines train direction, provides timing and actuates the crossing control. Control action is triggered and timed when the train moves in the direction of the crossing. It is designed to operate in conjunction with conventional island track circuits. *Servo Corp. of America*

Door control system (RA-5)

The FSP-1 remote control system controls factory and warehouse doors by pressing one of two or four command buttons on a truck dashboard. The system has a capacity to control up to 90 separate objects and can be used for railway switches, light signals, and gates. Transmitter, which calls a receiver when a corresponding two-digit number is pressed, is powered by chargeable batteries independent of truck's electrical system. Receiver is powered by building's electrical system. *Bofors Industries.*

HF track circuit (RA-6)

A high-frequency track circuit has been developed for use where short track circuits are required. This circuit can be applied in yards without using insulated joints. The new equipment is transistorized and operated from 117 volts, 60 Hz. A feature of this track circuit is its ability to operate in areas where there is rail film. Operating frequencies are between 50 and 100 kHz. Equipment consists of a transmitter and receiver, both on printed circuit boards and associated relay. *WABCO Signal & Communications Div.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

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• Inquiries can be processed only if title and company are shown. 2/3/69

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VIEWPOINT

Sic semper transit: A fable

By Joe Asher

In 1492, Christopher Columbus, head of the Super-Hispanic Rapid Transit Association, went to see Queen Isabella to ask for gold to finance his voyage to Nova Technologia, the fabled land beyond the western ocean.

The good Queen was sympathetic but skeptical. "What's the pitch, Columbus? Isn't our 100% Castilian Technologia good enough for you?"

"Sure, Queen," replied Columbus, "but just look at the bag we're in. Madrid is growing, Seville is growing—it's the same in all the big cities. The government spends all its gold fighting the Moors or buying private horses instead of carriages. Everyone knows carriages are more efficient on crowded avenues than a horse for each different person."

"That's what people want," said the Queen, "so that's what I give them. Besides, my councillors tell me that what's good for the stable-builders is good for the economy."

"Even if it wrecks Madrid, Seville, and all the other cities? Why can't we get people to ride carriages in town, and ride their horses in the country? The government pinches pesetas when it comes to spending money on carriages."

"I'll think about it," the Queen replied cautiously. "But the gold you're getting is better than nothing, you ought to be grateful for it."

"I am, Your Majesty, but time is running out. How many carriages can a couple of pesetas buy, anyway? Every one has to be custom-built, and that drives the unit cost way up."

"Strictly your problem. Find a way to get them down. Try something different—some new techniques."

"Exactly, Your Majesty. A grant from you would stake my voyage to the land of cost-benefit efficiency."

"Look, I've got 50 other lobbyists waiting to see me—"

"Your Majesty!" he cried. The Queen looked up.

"Your Majesty, I'm going to ask you a very personal question. Why is it that we don't have a Castilian Transit Renaissance? Italy has one, France has one, and we just sit around and talk about how there's a rennaissance coming."

The point obviously reached home. Isabella rose from her throne, turned to Columbus and said:

"You win, I'll stake your trip. Who do the French and Italians think they are, anyway, having their renaissance before ours?"

EVERY FABLE HAS A MORAL, AND THIS ONE HAS THREE

- **Renaissances don't come for free;**
- **Government heads can be swayed by appeals to self-interest or prestige, not to efficiency or conscience;**
- **Rapid transit sorely needs a Columbus.**

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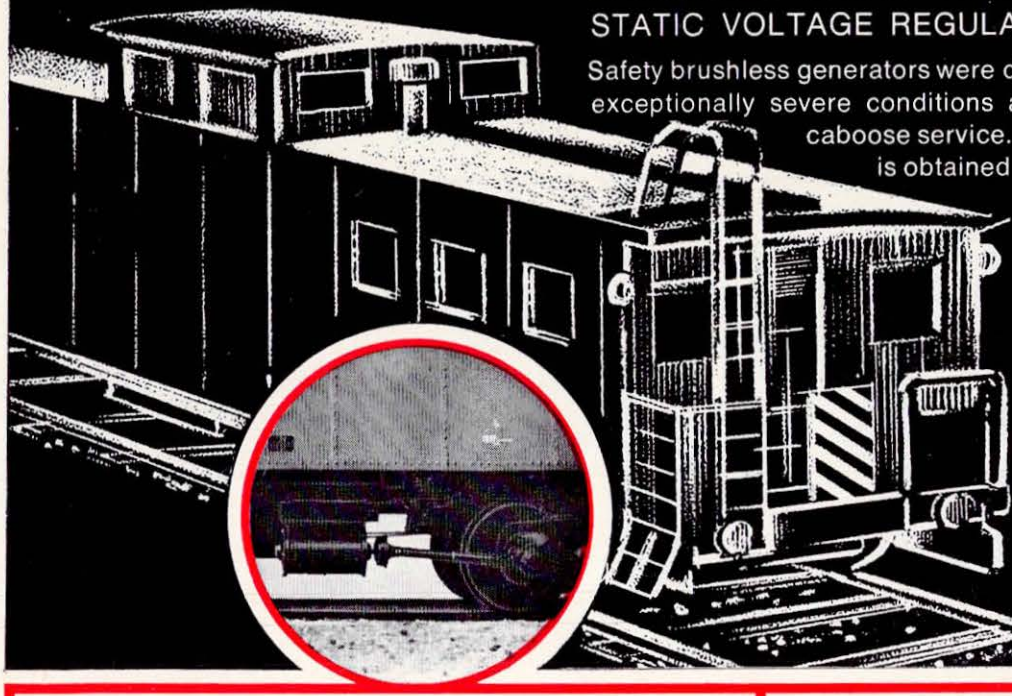

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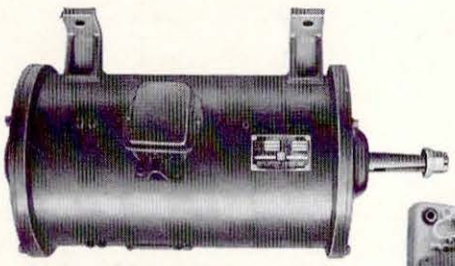

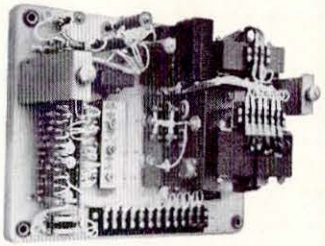

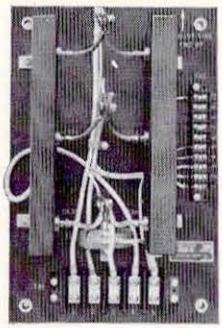

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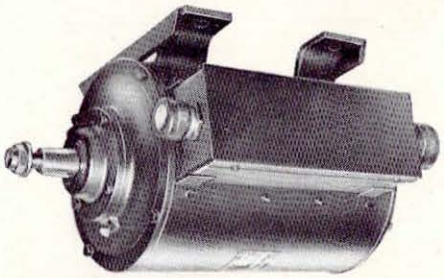

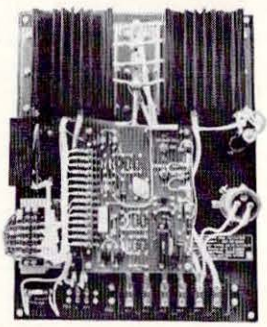

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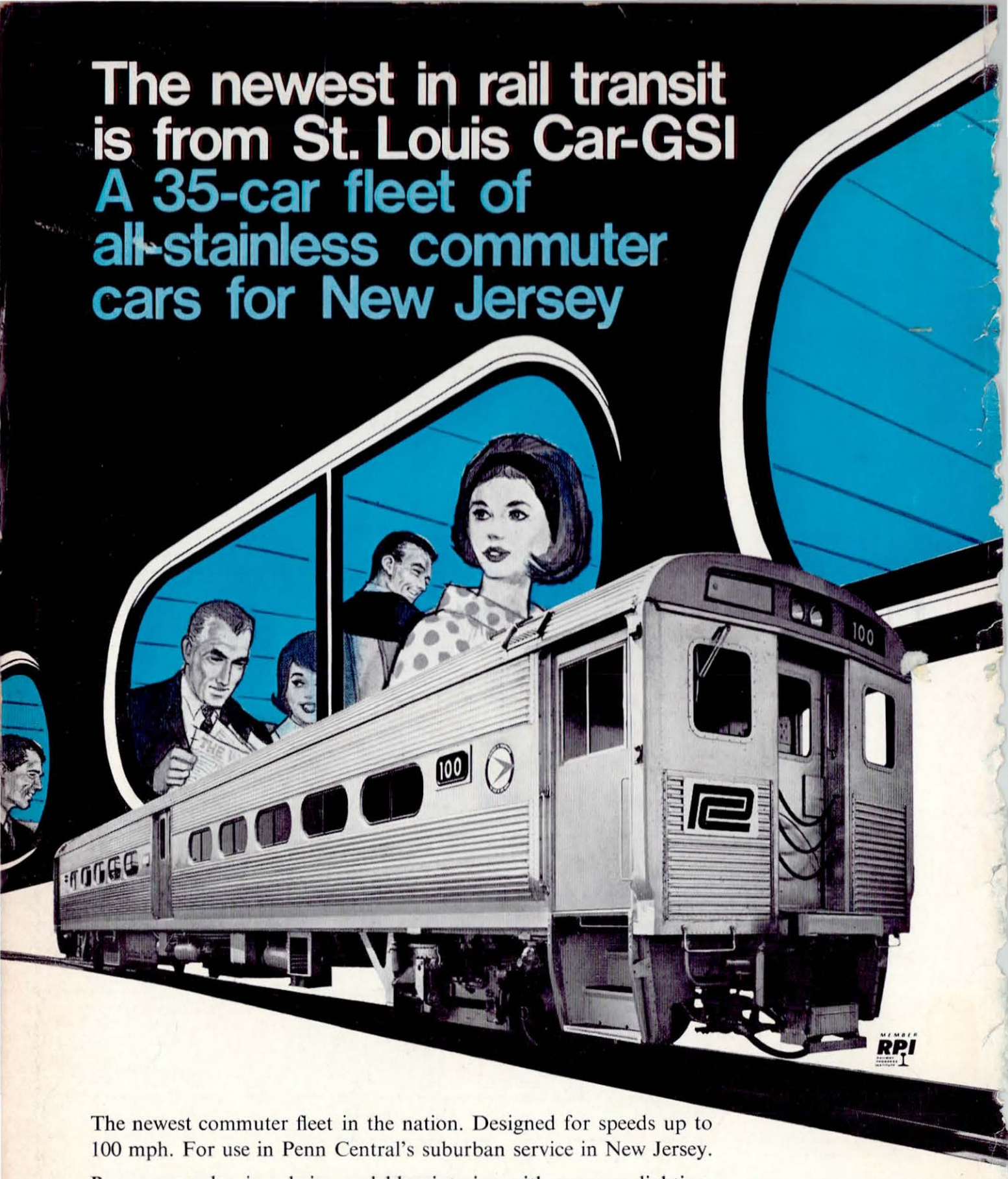

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